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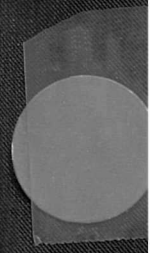

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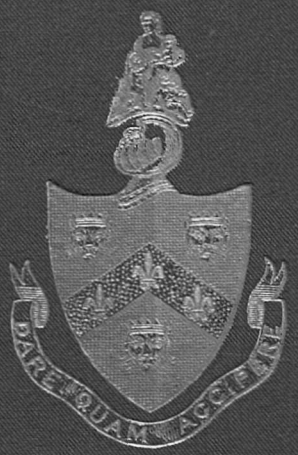
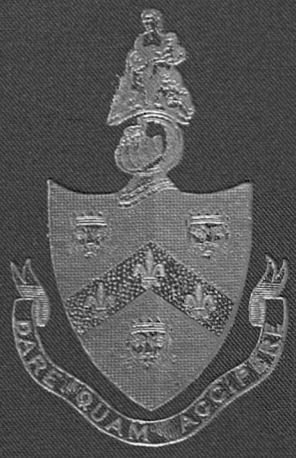



# Guy's Hospital Gazette.




# Guy's Hospital Gazette.

Dr Jewell
Bastow

# GUY'S HOSPITAL GAZETTE.

VOL. II.

NEW SERIES.

1888.

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1888.

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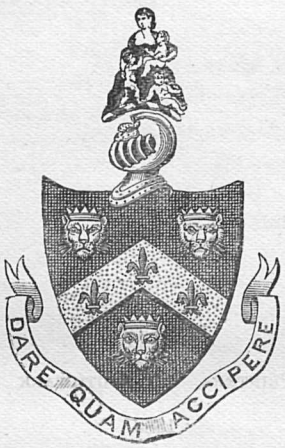


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**Guy's Hospital Gazette,**
*JANUARY 7, 1888.*

## A CASE OF EXTRA-UTERINE PREGNANCY.

Sarah B—, æt. 37, was admitted into Dorcas, under Dr. Galabin, on May 1st, 1887, for abdominal swelling.

Has been married six years, and has aborted five times before the third month, but has had no full-time pregnancy.

Has had no period since January; thinks she is pregnant, as she finds the abdomen increasing in size.

*On admission.*—The abdomen is found to be decidedly enlarged, measuring 28 inches round at the umbilicus, and 31½ inches at a point midway between the umbilicus and pubes.

On palpation a bilobed swelling is felt with a depression at the umbilicus, the left half being on a level with the umbilicus, the right half reaching somewhat higher.

Per vaginam the os uteri is found to be directed forwards and upwards behind the pubes. A large rounded elastic mass is felt behind the cervix, extending quite two inches below its level. A distinct impulse is conveyed to this mass behind the cervix by abdominal palpation of the swelling on the right side, while palpation of the left side swelling gives a distinct impulse to the cervix itself and not to the mass behind.

There is a difference in the consistence of the two abdominal swellings, the one on the right side has always an elastic feel with a fairly smooth surface, while the left one varies from time to time, being sometimes soft and at others quite hard. This at once suggested to Dr. Galabin the possibility of the left side swelling being uterus. At the upper and outer corner of the left side mass a small hard nodule can be felt, much like a subperitoneal fibroid.

A distinct souffle is heard over the right side mass but not over the left, and no fœtal heart sounds can be heard anywhere. The breasts are somewhat enlarged, and on squeezing them a little opaque fluid comes out of the nipples. Dr. Galabin now suggested that the left side mass was enlarged uterus, perhaps containing a fœtus, and the right side mass an extra-uterine pregnancy, or perhaps a fibroid tumour.

The patient was allowed to get up in the evening and move about the ward, and she remained in the same condition for about a month.

June 1st. Dr. Galabin thought that the abdominal swellings extended higher up, while the notch between them did not go down so low.

Per vaginam the cervix uteri seems higher up behind the pubes, and can only be reached with difficulty, while the mass behind has come down lower.

June 16th. This morning there was a sudden gush of greenish yellow watery fluid from the vagina. Patient has been troubled with sickness a good deal lately. The souffle is now quite distinct over both abdominal masses, but no fœtal heart sounds are present. The varying consistence of the left side can be frequently noticed, and now by manipulation it becomes harder.

June 28th. Per vaginam something very like fœtal movements could be felt in the mass behind the cervix, and these may be brought about by palpation of the right side abdominal swelling. Late in the evening there was a sudden gush of thin, clear, yellowish fluid from the vagina, similar to that which occurred on June 16th. Afterwards patient was in considerable pain, and per vaginam, vigorous movements could be felt in the vaginal mass. The probability of extra-uterine pregnancy now seemed very strong, although through the abdominal wall no fœtal movements could be felt.

July 2nd. Another gush of fluid to-night, followed again by strong fœtal (?) movements in the vaginal mass.

July 5th. Patient was in great pain all night and got no sleep in consequence. The pain continued all the morning and at 2 p.m. to-day she suddenly had a rigor, and the temperature was found to be 106·2°. Quiniæ Sulph., gr. v., given at once, and by 6 p.m. the temperature was down to 99·8°. To relieve the pain she was given Pil Opii, gr. ½, every 6 hours.

July 6th. Patient was in less pain; but on July 7th she was decidedly worse. Temp. 105°. Pulse 120. A slight yellow discharge came from the vagina during the day.

July 8th. Patient suffered severe pain all night in the abdomen and down the thighs. Temperature 100·6°. She is much weaker now, and has a very pinched "abdominal" look about the face.

When Dr. Galabin came in the afternoon and saw the patient's condition, he decided to perform abdominal section at once, thinking that this would give the patient a chance of recovery, whereas if left without operative interference, a fatal termination was inevitable. The patient was accordingly anæsthetised with methylene, and Dr. Galabin made an incision through the abdominal wall, commencing one inch below the umbilicus. On opening the peritoneal cavity a dark-coloured mass with a somewhat irregular surface appeared, evidently the right side swelling which one felt through the abdominal wall. This seemed to be placenta covered by something which Dr. Galabin thought might be the folds of the broad ligament. A band ran across the surface of the mass, looking like either round ligament or fallopian tube. There were many adhesions between this mass and the surrounding structures, which required ligaturing with catgut before they were separated. Towards the posterior part of the mass in dividing an adhesion a nick must have been made into a placental sinus, for at once a very large amount of hæmorrhage ensued. Attempts were made to stitch up this nick, but from its being so far back, and the enormous hœmorrhage, they were only slightly successful, and sponge pressure was the only way in which the hæmorrhage could be kept under.

Dr. Galabin then got his hand in, and passed it down into the posterior *cul de sac*, where he found a fœtus. This was extracted, and found to be about five months old, thus corresponding to the time the patient thought she was pregnant. The fœtus gave a few feeble gasps and then expired. There seemed to be a thin false sac covering the fœtus in the pouch of Douglas, shutting it off from the general peritoneal cavity. No attempt was made to remove the placenta, as the enormous bleeding base that must have been left would be too large to surround by a clamp. The left abdominal swelling was found to be enlarged uterus, not apparently containing a second fœtus as had been suggested once or twice during the observation of the case. One or two small fibroids were seen on its surface.

Further attempts were made to stop the placental bleeding, but some oozing remained, and as the patient's condition was very critical the abdominal cavity was wiped out, a Keith's drainage tube inserted, and the wound closed as soon as possible. She was placed in bed and warmth applied by hot bottles and blankets, but she never rallied, and died about an hour and a half after the operation.

At the *post-mortem* examination a large amount of blood was found in the peritoneal cavity. The uterus was considerably enlarged, measuring from the external os to the top of the cavity 4½ inches. It contained several small fibroids, and was lined by a membrane apparently decidua.

The placenta seemed to be lying in the right broad ligament, and the right fallopian tube could be traced for about 2 inches from the uterus, and then seemed to end abruptly. There was no dilatation of it. There was nothing to show that the gestation had or had not been

tubular. Both ovaries were found, and one contained a corpus luteum of considerable size.

The most satisfactory feature of this case was the establishment of the diagnosis. The facts with which one had to deal were the presence of two abdominal swellings and a mass in the vagina, together with somewhat uncertain evidences of pregnancy. The altering consistence of the left side mass, together with the impulse which could be given to the cervix from it, pointed pretty clearly to this being uterus. The detection of fœtal movements in the vaginal swelling, together with and apart from manipulation of the right abdominal mass, were strong points in favour of extra-uterine pregnancy. The fact that one could never feel fœtal movements in the right abdominal mass was due—as the operation showed—to the placenta being situated there; and though this was not suggested, before the operation, as the site of the placenta, one may mention that a souffle was always heard more or less distinctly over this area.

That the fœtal heart was never heard, can be easily understood when one considers the position of the fœtus.

The chief interest of the case, however, seems to be involved in the question whether operative treatment at an earlier period would have given the patient a better chance of recovery. Dr. Galabin was inclined, afterwards, to think that it might have done.

Again, although the position of the placenta was never diagnosed, there was little doubt, for at least ten days before death, that a fœtus was present in the pouch of Douglas, and perhaps, this might have been removed per vaginam, leaving the placenta entirely untouched. But even then the chances of septic trouble would have been very great.

Lastly, how was the position of the fœtus brought about? Dr. Galabin was inclined to think the gestation was tubular at first; that this ruptured at an early age, and that while the placenta remained in the ligament the fœtus dropped down into the pouch of Douglas, where a thin sac formed over it, shutting it off from the general peritoneal cavity; and this seems a very probable explanation. E. P. M.

## BLOOD IN URINE.

When I commenced to make the following observations I did not think that any certain diagnosis as to the source of the blood present in the urine could be made from the appearance of the urine, and it was with the view of testing this point that I examined the following cases. I added to each specimen one or two drops of freshly-drawn warm bullock's blood, and examined with the spectroscope.

| | Disease. | Five Minutes after adding Blood. | | | Nineteen Hours after adding Blood. | | | |
|---|---|---|---|---|---|---|---|---|
| | | Reaction. | Appearance. | Spectrum. | Reaction. | Appearance. | Spectrum. |
| 1 | Diabetes ... ... | Acid | ... | Oxyhæmoglobin | Acid | Smoky | Acid hæmatin |
| 2 | Typhoid ... ... | " | ... | " | " | Clear | Oxyhæmoglobin |
| 3 | Locomotor Ataxy ... | " | ... | " | " | Smoky | Acid hæmatin |
| 4 | Phthisis & Albuminuria | " | Strongly smoky | Acid hæmatin | " | " | " |
| 5 | Thoracic Aneurysm ... | " | ... | Oxyhæmoglobin | " | " | " |
| 6 | Gonorrhœal Rheum. ... | " | ... | " | " | " | " |
| 7 | Bronchiectasis ... ... | " | ... | " | Neutral | Thick | (?) Oxyhæmoglobin |
| 8 | Diabetes ... ... | " | ... | " | Acid | " | Uncertain |
| 9 | " ... ... | " | ... | " | " | Smoky | (?) Oxyhæmoglobin |
| 10 | Heart (Hæmaturia) ... | Alkaline | Thick | " | " | Clear | Oxyhæmoglobin |
| 11 | Dyspepsia ... ... | Acid | ... | " | " | Smoky | Acid hæmatin |
| 12 | Stricture ... ... | " | ... | " | " | Thick | Oxyhæmoglobin |
| 13 | Pleurisy ... ... | " | Faintly smoky | Acid hæmatin | Neutral | Plum colour | Red. hæmatin |
| 14 | —— ... ... ... | " | ... | Oxyhæmoglobin | Acid | Thick and smoky | Acid hæmatin |
| 15 | —— ... ... ... | " | ... | " | " | Smoky | (?) Acid hæmatin |
| 16 | —— ... ... ... | " | ... | " | " | " | Acid hæmatin |
| 17 | —— ... ... ... | " | ... | " | " | Thick | Oxyhæmoglobin |
| 18 | —— ... ... ... | " | ... | " | " | " | " |
| 19 | Acute Rheumatism ... | " | Faintly smoky | Uncertain | Faintly acid | Clear | Oxyhæmoglobin |
| 20 | —— | Alkaline | Thick, not smoky | " | Alkaline | Plum colour | Alkaline hæmatin |
| 21 | Acute Rheumatism ... | Acid | ... | Oxyhæmoglobin | Acid | Smoky | Acid hæmatin |
| 22 | Lead Poisoning ... | " | ... | " | Neutral | Red | Uncertain |

In order to observe the changes produced in urine by its being brought into contact with a bleeding kidney, I killed a cat and at once removed the kidneys. I made several incisions into the kidneys, and then allowed them to stand in contact with normal human urine for four days. I then found that the urine was dark-red in colour and gave the bands of methæmoglobin.

Horse's urine on being mixed with blood remained alkaline and gave the bands of oxyhæmoglobin.

Cat's urine with a faintly acid reaction gave with blood the oxyhæmoglobin bands.

On examining some urine mixed with blood from a case of tapping above the pubes, in which there was a good deal of hæmorrhage, I found that it gave the bands of methæmoglobin. In this case, after standing for some time, the blood settled at the bottom of the vessel, leaving the urine above it cloudy but not smoky.

I do not propose to draw any definite conclusions at present from the above observations, but hope later to be able to follow them up and add to them, especially as to the presence of methæmoglobin in urine and other secretions.

H. J. CAMPBELL.

## A CASE OF TRACHEAL STENOSIS.

The patient was lately in Stephen Ward under Dr. Pavy. Age, 28.

*Family history.*—One sister died of phthisis; otherwise unimportant.

*Previous history.*—Rheumatic fever at age of 15. Swollen glands in neck for past 8 years; they have occasionally opened and discharged matter. Has had a cough for two years, off and on. No mention of syphilis in report.

*Present illness.*—First noticed shortness of breath on exertion five weeks ago. Said to have expectorated blood once. Has noticed wasting since last summer. No marked night-sweats, but slight perspiration. His friends say that his noisy breathing could be heard as he entered the house of an evening. His medical man advised his removal to hospital. The friends (according to their statement) were informed that patient had "consumption in the throat."

*On admission.*—The most obtrusive feature of his case was the inspiratory dyspnœa. This was watched with some anxiety, but passed away, to a great extent, after two or three hours in bed.

The *chest* does not expand well at apices; more movement beneath right than left clavicle, both to inspection and touch. On percussion.—In front, both apices resonant; right gives the better note. Behind, both lungs resonant. On auscultation.—Expiration more prolonged beneath left than right clavicle. Both in front and behind, vesicular murmur faint on left side as compared with right. Bronchophony well marked at both apices; a few moist sounds beneath both clavicles. Tactile vocal fremitus, equal both sides.

Patient's voice was weak and hoarse; cough muffled, but of a metallic character.

Heart.—No bruit; reduplicated second sound.

Urine.—Lithatic deposit; otherwise normal.

The case was admitted from the taking-in room by the Assistant-Physician as one of phthisis, in accordance with the medical man's opinion. A cursory examination made on his admission tended to support this view, and no particular interest was shown in the case apart from the dyspnœa. This, and the alteration in patient's voice, were ascribed partly to the lung disease, and partly to a supposed tubercular infiltration of the glottis and its surroundings. Sufficient attention was not paid to the noisy character of the respiration. It was intended to examine with the laryngoscope that evening, but the House-Physician was unavoidably absent. Early the following morning, dyspnœa

became again most marked. The larynx moved to a slight extent only. The House-Surgeon now saw the case, and it was decided to wait before taking further steps. In a couple of hours' time, he became so distressed and cyanosed that tracheotomy was performed. This gave him no relief whatever, and he gradually sank, and died asphyxiated the same evening.

*Post Mortem.* — Considerable narrowing of lower part of trachea, the narrowed portion being over an inch in length; lumen about the size of an ordinary pen-holder; lower end of tracheotomy wound, one inch above upper limit of obstruction; calibre of left bronchus half that of right. Right lung weighed 18½oz.; left lung 13oz., small, with well-marked adhesions upon it. Bronchial glands enlarged; upper lobe of left lung hard, and in a condition of bronchiectasis, and caseous; vessels thickened; vocal cords healthy, but ulceration extended from the right one down to seat of obstruction. Left bronchus also shows ulceration. Caseous and enlarged cervical glands on right side; Old endocarditis of mitral; white patches in testes; evidence of primary sore on penis.

*Remarks.* — The history of phthisis, on admission, was deceptive, and it is unfortunate that an early opportunity was not taken to examine the larynx; on the morning following admission patient was too ill to be examined. The dyspnœa and stridor were not persistent, so that a paralysis of the crico-arytænoidei postici was not suspected. The larynx, as above-mentioned, moved to a slight extent only on respiration, and therefore, if obstruction in the air-passages had been thought of, this fact should have suggested that its seat was below the larynx, in accordance with the teaching of Gerhardt. That the laryngeal movement was not more than one centimetre in range, I am not prepared to say; and even had this point been accurately determined, I should not have accepted it as an absolute criterion, as regards the advisability of operating. The head was not stretched forwards, as is said usually to be the case in tracheal (as distinguished from laryngeal) obstruction. The deficient movement and vesicular murmur of left side were ascribed to disease of that lung; of course, it was easy to see after tracheotomy that they were really due to obstruction of the left bronchus.

The distinctions between laryngeal and tracheal stenosis, as laid down by Professors Riegel and Gerhardt, are tolerably clear; but we have to consider, on the other hand, the case of a patient but recently admitted, with an indefinite and misleading history, cyanosed, and in great distress. In such a case the confidence in diagnosis begotten of experience would perhaps justify one in not operating; but to a tyro such confidence is impossible, and whilst a straw remained it would probably be clutched.

The commonest form of cicatricial contraction of the trachea being syphilitic (Riegel), in all probability syphilis was the cause in the present case. This view is supported by the condition of the testes. The lower half of the trachea, moreover, is the favourite seat of obstruction when this is syphilitic in origin (Gerhardt). The condition of bronchiectasis of left lung was a remarkable feature *post mortem*. It could hardly be due to dilatation of tubes below the point of stenosis, since the condition was limited to the upper lobe, whilst the whole left bronchus was much narrowed.

Syphilis might produce a condition of fibroid induration (with caseation) and subsequent dilatation of tubes. But the induration and caseation were more probably due, as I believe, to phthisis, the bronchiectasis being secondary to the fibroid changes. The cervical glands showed well-marked caseation; and this, and the fact of the lung being covered with adhesions, support the latter view.

H. P.

## THE MICROBE OF CANCER.

Dr. Scheuerlen, having set himself to study this subject, says that he has discovered the productive agent of cancer, a pathogenic microbe. He has made an elaborate communication on his discovery to the Berlin Medical Society. The principal points are as follows:—

Scheuerlen for material took the excised breasts as yet untouched of ten cancerous cases. Using all antiseptic precautions, he took from a section of these tumours a drop of juice and placed it in a tube containing a special nutritive soil. The nutrient material, chosen after mature consideration, consisted of the serum taken from a pleuritic effusion, rendered duly sterile and made to coagulate. The tube after inoculation was put into a stove at a temperature of 39°C, and kept there for three days, after which the changes he noticed took place. The surface of the serum appeared to be covered with a colourless pellicle, which after a few days became a brownish-yellow colour. Examined under the microscope by homogeneous immersion, there were discovered, in addition to bacilli of a length of from 1·5 to 2·5$\mu$ and a breadth of 0·5$\mu$, forms of almost equal length and ovoid in shape, highly refracting and of a greenish colour, and possessed of a distinct movement. The bacilli, as well as these bodies which were considered to be spores, were possessed of movement. Coloured by Gram's method, the bacilli become plainly visible, but alcohol discolours them almost instantaneously, and they, moreover, appear to colour at the extremities only. The spores are stained when placed for half an hour in boiling aniline fuchsine, afterwards treated with nitric acid (1–3) for some seconds, and then well washed in water.

In microscopic sections of the tumours, Scheuerlen has not yet succeeded in discovering the presence either of bacilli or of spores, but has observed the spores in preparations of the cancerous juice. Sowing a drop of pure cultivation on Agar-agar he obtained after twelve hours, at a temperature of 39° C., a colourless pellicle formed of bacilli. In from twelve to twenty-four hours, there began to appear at their extremities the spores, which by degrees freed themselves. The cultivations on Agar-agar were inoculated by Scheuerlen upon six drops into the posterior mammary gland. Four of these animals are still living: two have been killed: one on the 28th day, the other on the 35th day after inoculation. In the tissue of the gland was found a tumour about the size of a hazel-nut, which, from a histological and bacteriological examination, shewed itself to be of a cancerous nature. Scheuerlen concludes from his experiments:—

1. That in cancerous tumours there exists a bacillus which can be clearly isolated.

2. That the spores of the bacillus are observed in all microscopical preparations of cancerous juice.

3. That inoculations from the pure cultivation of this bacillus upon animals gives rise to the development of a cancerous tumour.

4. That one must admit a relation of cause and effect between the bacillus and the cancer.

## Correspondence.

*To the Editor of* GUY'S HOSPITAL GAZETTE.

DEAR SIR,—Will you allow me a small space on the question of the Honours Examinations of the London University.

When I entered Guy's, a candidate whose name appeared in the second division of the pass examination could not compete for honours, and a return to this system is advocated by your correspondent "T." With him I cannot agree. I remember one man at least who thus failed to score high honours confidently expected of him. He is now on the staff of a large London Hospital.

When my time came the rule had been abolished, and I can call to mind two men who scored their "firsts" in honours, although they were only in the second division of the pass. These men are also now members of the staffs of large London Hospitals.

I think that no system should be in force which might prevent such candidates from showing their true calibre. It is true that they may have partially neglected certain subjects of the pass in order that they might be placed high in honours in others. By so doing they ran a risk of being plucked altogether, but having reached the general standard of a pass, even though in the second division, I think they should be allowed to reap the reward of their higher reading by taking the honours at which they aimed.

To shew that I have no reason to be personally biassed, I may add that though I had the satisfaction of seeing my name in the first division at each pass examination, yet I never took high honours, and this was only as it should be, for I never read "high" in any particular subject, but always with the view of making a certainty of a "pass."

At the same time I am bound to confess that the present system as regards the Preliminary Science and Intermediate M.B. (if I understand it aright) is far worse than the one I have objected to, for under such a scheme my modest second classes in honours would never have been taken at all, and I am sure that of the first-classmen of the past some at least would have felt it their duty to shirk the examination for honours and enter for a simple "pass."—Yours, etc., XX.

# Passim.

THE last fortnight at the Hospital has been one continuous round of gaiety to all those capable of enjoying themselves, and luckily their number was large. Those who were really ill formed but a small proportion, indeed were almost absent from the Surgical Wards. It would seem as though Providence granted special dispensations against sickness at this time of good cheer and festivities. Christmas was held on Monday, the 26th. The Wards presented a very gay appearance, decked as they were with evergreens and hung with Chinese lanterns, repaying the amount of labour and thought bestowed on them. When the plum-puddings (and, oh! the size of those puddings) vanished, clouds of smoke arose from every bed containing a male occupant. Then arose a sound of revelry, and there appeared a nigger troupe, every Ward of the Hospital being invaded in turn. Very good fun it was too, with its songs, and breakdowns and jokes. We followed it as children follow a Punch and Judy, and enjoyed its heterogeneous make-up and boisterous humour. Then the illuminations in all the Wards commenced, and everyone who was able to wandered round and criticised and admired. In Dorcas there was a lucky-bag in the form of a huge snowball—a capital idea; whilst in Mary Ward a magic lantern and Christmas-tree delighted the children.

OF the concerts held in the Wards we have given an account elsewhere. Suffice it here to say, that better ones have never been given in the Hospital, and that their management reflects credit on all concerned. They have been thoroughly enjoyed by all who witnessed them.

A SOMEWHAT curious sight might have been seen on New Year's Eve by anyone happening to pass the Hospital gates. Following an old custom, a large number of men assembled, just before midnight, in the courtyard of the Hospital, and joining hands around the statue of Thomas Guy, awaited the death of the Old Year. At the first stroke of twelve, a voice, which rang out well on the clear, frosty air, struck up "Should auld acquaintance be forgot," the entire ring taking up the chorus, dancing, as it sang, round the statue.

WE have to thank many old Guy's men for their generous support and kind wishes for the future of the GAZETTE, and many of them, too, for contributions, which are always welcome, and will, we hope, increase rather than diminish as time goes on.

## WARD ENTERTAINMENTS.

EYE WARDS.—On Saturday evening, December 31st, a concert was held in the Eye Wards. The Dining Hall in which the festivities were carried on was tastefully and neatly decorated. From 7 to 9 the programme, consisting of music, instrumental and vocal, was gone through. Among the most noticeable were duets by Mrs. and Miss Martin, violin solo by Mr. Russell, and comic song by Mr. Richard. We must not forget to mention the names of Messrs. Roper and Robley Browne who aided greatly in their accustomed manner. The evening's entertainment was brought to a close by "Auld Lang Syne."

MARTHA.—The decorations in Martha were equalled by few and excelled by none, and reminded the aged chronic of the dear dead days beyond recall. The Christmas-tree was a real Christmas-tree, and battered old Students sighed to be children again and get their share of the liberal presents of Mr. Durham and other pious benefactors. But the wonder of all was how those pretty white maidens could come and sing alongside of those nasty black men on Tuesday night. Everybody was delighted with the performance, and the novelty of introducing ladies into a minstrel troupe drew a full house and enthusiastic applause. The children won't soon forget their merry Christmas, though they were a bit afraid at first of dear old Father Christmas himself, till the benevolence of his attentions thawed their terror. Everything went off thoroughly well in Martha, as it always has done, and everybody there spent a right merry Christmas.

JOB.—He who writeth this, speaketh truth. He was leaving ye Spital at a late hour of ye night when he chanced upon ye ghoste of Lucullus hard by ye statue of Thomas Guy—

"Who art thou, spirit, and why weepest thou thus when alle ye worlde keepeth merrie this Christemas tyde?" asked Thomas.

"I am ye ghost of Lucullus," replied ye spirit, "and I weep for that I died before my day."

"Insatiate one, had'st thou not for thine owne pleasure enow?"

"Nay, nay, for of alle our savourie messes not one could compare with that cunning puddinge in Job."

He who heard these words of ye gourmet hurryed back to ye warde that he might perchance take some morsell that remained to ye unquiet ghoste. He lingered awhile over that puddinge and at length bethought himself of Lucullus and hasted to bear a portion unto him, but ye ghoste had scented the morning air and Thomas Guy stoode alone.

On ye Thursday following a band of minstrells from Epsom towne did discourse sweet melodies with ye which were mingled merrie japes and quaint conceits whereat ye company did laugh consumedly. Ye antiente hollie graced ye walls and curious lamps of foreign sorte did shed a wondrous lighte at which alle did greatlie admire. I'faith it was a merrie spectacle.

LUKE.—A concert was held here on Tuesday, January 2nd. It commenced early to enable the performers to get back in time for their professional duties of the evening. Those who gave their services were, Miss Tempest, Miss Cole, Miss Isaacs, Mr. and Mrs. Ben Davis, Mrs. Noble, Mr. White, and Mr. Izod. The singing and playing were, as might be expected, exceedingly good, and most thoroughly enjoyed by a large audience, but by none more than by the patients, who shewed themselves perfectly capable of appreciating good music. After these performers had gone there was a Christmas-tree distribution for the children followed by music and singing. The ward was hung with Chinese lanterns, but in place of the heavy masses of foliage that adorned most of the other wards, there were long festoons of strung leaves and berries radiating from various centres in the ceiling, and giving to the Ward a somewhat classical appearance.

CORNELIUS.—The decorations in this Ward were very light and graceful, ivy being almost the only green material used. The ivy presented a very natural appearance climbing up the high sloping window ledges, and round the bed rods. Half way up the Ward a capital effect was produced by the conversion of two Hodgin poles which happened to be opposite one another into an arch by means of a strip of iron, the arch thus formed being clothed with holly. The credit of this, we hear, belongs to the head nurse. Bravo, head nurse. The arrangement of the lamps was very happy, and when these were lit the Ward presented an appearance that was excelled by none other. On Tuesday 27th the Sister provided a magic lantern entertainment for the patients, the services of Mr. Wyatt Smith being secured as showman. We need scarcely say that this he did very ably.

LAZARUS.—On Wednesday, Dec. 28th, a concert was given in Lazarus Ward before a large and appreciative audience, a considerable number of patients and visitors being present. If the success of an undertaking is to be measured by the amount of pleasure caused, then this evening's entertainment may be considered to have been a perfect success, as everyone thoroughly enjoyed themselves. When the lamps, of which there was a large number and a great variety, were lit, the Ward presented a charming appearance. A very pretty feature in the decorations was the arrangement of the window ledges. These were thickly covered with moss, growing from which apparently was a large number of lilies-of-the-valley. The performance was a well variegated one, the humorous element being very strong. Mr. Grout's recitations, "The Walrus and the Carpenter," and Gilbert's ballad. "Etiquette," were most finished performances, their humour being evidenced by the roars of laughter with which they were received. The comic songs of Mr. Bates and Mr. Whittaker were also much enjoyed, the former accompanying himself on the piano, the latter on the banjo. Mr. Russell is to be complimented on his violin playing. In addition to these, Mr. Roper, whose singing is always justly appreciated, Mr. A. S. Taylor, Miss Starling and Miss Randell gave songs, and Mr. Halse Francis a recitation. Altogether the concert reflected great credit on the management.

LYDIA.—The entertainment in Lydia Ward took place ou Wednesday, December 28th, and was pronounced by everyone to have been a signal success. The Ward was tastefully decorated with the usual evergreens and Chinese lanterns. Mr. Robley Brown opened with a piano solo. Numerous artists and artistes, friends of students, kindly lent their talented assistance to amuse the patients, and really excellent music, chiefly vocal, but also instrumental, was heard. Mr. Grout and Mr. Whittaker ably assisted the comic element of the performance, the former by his extremely well-executed recitation, the latter by his very clever comic songs with banjo accompaniment, each eliciting roars of laughter from the audience. The concert concluded with "Auld Lang Syne" and "God Save the Queen."

ACCIDENT.—A concert was held in this ward on December 30th, which proved most successful. The Ward, which, from its size, is most difficult to decorate, looked very well indeed, quite repaying the time and labour expended on its adornment. The Guy's coat of arms, which hung on the wall facing the door, was exceedingly well done, and the draping of the mantelpieces was most tasteful. Of the performers, Miss Grace Woodward took the greatest share of applause for her singing. The singing of Miss Randell and Miss Bailey was much appreciated, the former, in addition to solos, singing a duet with Mr. Roper. Mr. Taylor's banjo songs were very well received. Amongst the other performers, Mr. Alexander gave several recitations, including the "Green Old Man," which was received with considerable laughter, and Dr. Harsant gave a song.

CHARITY.—On the afternoon of the 27th December, the well-stocked Christmas-tree having been lighted, good old Father Christmas, red-ochred and bearded, and from a supplemental nose looking as though he had just left the hands of Tagliacotius, for this once descended to earth to carry dismay into the infant mind and at the same time toys into the infant fist. Little visitors from all the Wards in the Hospital were present, and many grown visitors looked on and enjoyed the scene. The Ward presented a most seasonable appearance, a large amount of cotton-wool being used as a foundation for the decorations. The snow-like effect thus produced was exceedingly pretty; a further feature in the decorations being the presence of a large number of fairy lamps.

NAAMAN.—The concert in this Ward, which was held on Thursday the 29th, proved a great success in every way. The Ward looked charming, the chief features in the decorations being the large number of Chinese lanterns employed and the artistic way in which they were grouped; the fire-place, too, showed great taste in the way in which it was arranged. The concert, which opened with a pianoforte solo by Miss Cole, was composed of music which although it certainly came under that class commonly called "good," was yet so well chosen as to be equally appreciated both by patients and visitors. The performers were: Miss Randell, who, with her usual good nature, gave two solos in excellent style, as well as a duet with Mr. Roper (and whom we wish to take this opportunity of thanking for her untiring energy all through the Christmas entertainments); Miss Bailey, who seemed to be in very good voice, especially in her "Ora Pro Nobis"; Miss Gordon's singing, too, was very much appreciated, especially in her rendering of "Robin Adair," which she gave as a well-merited encore to her second song; Herr Wiener, the leader of the second violins in the Crystal Palace orchestra, simply carried his audience away with him, and had he brought enough music with him I think they would have completely tired him out with encores. The usual Hospital contingent was also included in the programme, namely: Dr. A. S. Taylor, with his banjo; Mr. Cuff, who opened the second part of the entertainment; and the three R's, Robley, Roper, and Russell; and these did much towards making the evening the great success that it certainly was.

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We are pleased to be able to inform our readers that arrangements have been made with the printers to bind the first volume of the GAZETTE at the very moderate price of one shilling and sixpence each, on the condition that fifty subscribers send in their names; should one hundred copies require to be bound the price will be only one shilling each.

They will be bound in Guy's colours, with the arms of the Hospital.

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Mr. P. Mills has been appointed as Librarian to the Hospital.

## OUR ILLUSTRATION.

Our readers this week will doubtless receive a severe shock on viewing the latest innovation in our paper, namely, the illustration. We have up to the present time avoided publishing all pictorial attempts for many great and good reasons; but at the commencement of this week we received an agreeable surprise by post from Bradford, which altered our views entirely, with the result seen on the opposite page.

It seems, on the arrival of our football team in Bradford on November 18th last, during their late Yorkshire tour, the eminent photographists, Messrs. Cycle, Strikemoff & Co., were on the spot with an instantaneous camera, and were fortunate enough to get a good picture of the team moving down the platform on their way from the train. They kindly forwarded us a copy of the same, which we were so greatly struck by that we were induced to reproduce it in this week's GAZETTE.

At first sight, we confess we mistook it for an advertisement of "Hudson's Extract of Soap" or "Tom Smith's Crackers," and filed it carefully away in the waste paper basket, side by side with an Ode to New Year's Eve and a new Christmas joke about a turkey or something or other. It was only through the penetrative genius of our office boy that we were induced to look into it more carefully, when, of course, we fully recognised its true value at once.

A few remarks upon this picture are unavoidable. On looking at it sideways, one cannot help noticing a general air of brisk picturesqueness and home-fire-sidedness about the scene—combined with a certain melancholy charm of natural beauty, but at the same time of quiet, mirthful joy, all tending to produce an indescribable effect, calculated almost to move the heart of a bald-headed idiot or to bring tears to the eyes of a policeman.

But looking at it again in detail, one is forced to admit that the likenesses are exceedingly life-like. Commencing on the left hand side and working our way to the right, we can easily pick out each man, if not by his face, at all events by his figure.

On the extreme left now, is Pratt. He is undoubtedly all there—at least, as much as the picture shows us is all there. Then there is no mistaking Greig. One can see by his expression that he intends to get through the barrier without giving up his ticket. Alexander's moustache is all that he is recognisable by. But goodness! who can that minute figure be under the lee wing

of Greig? Surely that cannot be the fierce and untamed Steele? And yet it must be! Evans and Cruikshank have evidently both lost at cards on the journey up, and Bligh is undoubtedly chuckling over that joke Landon made when the train left Bedford, the point of which he has evidently just seen. It is a great pity Mitchell is not more visible; his back can only just be seen behind Bligh. Allport, we are afraid, would scarcely be recognised were it not that his arm is in a sling. His face, however, wears that expression of indigestion, and his figure bears those evidences of good feeding that so characterise him. Bryant certainly looks ready for any mischief that may turn up, as he usually is. Then you may wonder what that thing is in the plug hat. That's Rygate, that is. One man at least in the team must be respectable. There is a calm and authoritative dignity about Fripp, isn't there? He looks pained about something, however. Oh, of course, there is Marriott, evidently singing. Well, Marriott's spirits are so good, you know, and besides, we hear that he has lately learnt a new note by dint of careful practice, making a total of three. We can recognise Wallis at the back there; and one can see Randell at a glance. What a pity the photograph does not cover another two yards; we should then have seen Randell's body and legs. We are told, by one who was there, that the two hats visible over Marriott's head belong to Fawcett and Prime, and that Rogers is trotting along the other side of Fripp, and is completely blotted out. Instone got left behind, unfortunately, in the carriage, absorbed in reverie. What he was thinking about we cannot say, although we have asked him several times. On some points he is very apt to be silent.

Altogether, we must own that the photo as a work of art is a little gem, and as a likeness of the team is excellent—not flattering them in the least, mind you; and we sincerely trust that our readers will duly appreciate it, and that it will receive that approbation at their hands which we are sure it thoroughly merits.

NOTICE.

Several subscribers are asking for complete sets of the GAZETTE for 1887. We are unable to supply them owing to Nos. 2 and 4 being out of print. If any of our readers who may not be desirous of keeping the back numbers before mentioned, will hand in their copies to Mr. Wells, at the office, we shall feel greatly obliged. The full price, of course, will be allowed.

GENTLEMEN are reminded that contributions for the Fortnightly Competition should be sent in by Saturday, January 14th. The regulations have been printed in the last two numbers.

# Green Extracts.

The last number of the *Journal of Physiology* contains among other articles a paper by T. T. Mays, M.D., on "The differential action of Brucine and of Strychnine."

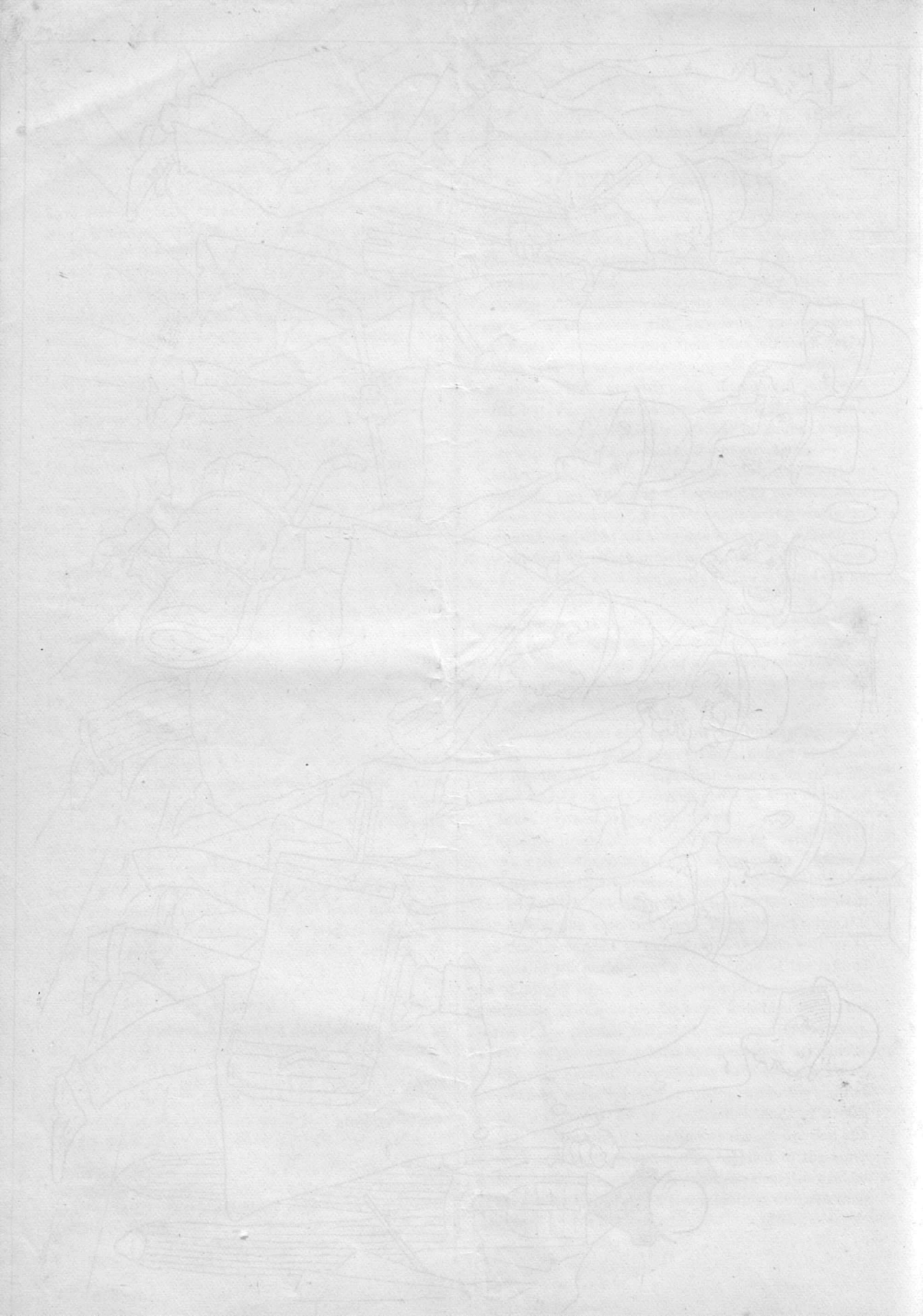
Experiments were made on frogs only with four specimens of brucine of different degrees of purity as regards contamination with strychnia, one specimen only being chemically free from that alkaloid. The solution used was of a constant strength—one per cent.—and a measured quantity was introduced into one nostril, an eye, or injected into the back of the animal, the results being compared with those of similar experiments with a one per cent. solution of strychnia.

Both alkaloids were found to cause death by arresting respiration, and both had a tendency to produce convulsions. Convulsions, however, appear very early in strychnine, and, if at all, very late in brucine poisoning; they invariably develop before death in strychnia poisoning, whilst death frequently occurs in pure brucine poisoning without a trace of spasm.

The anterior extremities were found to be mainly affected by strychnine, the posterior by brucine. Brucine also was found to have a local anæsthetic effect, which varied according to its degree of purity; strychnia had no such action.

The same Journal also contains an interesting paper by W. H. Gaskell, M.D., upon "The action of Muscarin upon the heart, and the electrical changes in the non-beating cardiac muscle brought about by stimulation of the Inhibitory and Augmentor nerves."

The author first shows that whilst no visible effect follows upon stimulation of the vagus in the neck of a tortoise, during the quiescent stage of the auricle and ventricle, which follows upon section of the sinus from the auricle, the coronary nerve being intact; yet, if a demarcation current is formed by a thermic section at the apex of the auricle, and a connection of the injured and uninjured parts of the auricle with a galvanometer, stimulation of the vagus produces a sudden rise in the course of the gradual fall of the demarcation current. This rise is prevented by the application of atropine to the sinus or auricle. Stimulation of the vagus, therefore, causes some change in the non-beating cardiac muscle manifested by an electrical change of a sign opposite to that which accompanies the contraction of a muscle; and, since atropine when applied to the sinus does away with this electrical manifestation, it is evident that this alkaloid paralyses the inhibitory fibres in their passage through the sinus,



Two views as to the nature of the action of muscarin are next considered. One—that of Schmiedeberg—attributes the standstill produced by muscarin and pilocarpin to an excitation of the inhibitory mechanism of the heart; the other to a direct depressant action on the muscle of the sinus. It is evident that if the former view is correct, not only will the sinus cease to beat on the application of a few drops of muscarin, but that a coincident electrical change similar to that described on stimulation of the vagus or coronary nerve will be produced. As the result of numerous experiments with pure hydrochlorate of muscarin, no such electrical change was detected, and hence it is concluded that muscarin and pilocarpin do not act as excitants to inhibitory nerves, but as direct motor depressants.

Experiments were then made to determine whether a dose of muscarin sufficiently large to produce a complete standstill of the heart had any effect on the variation of the demarcation current which follows on stimulation of the vagus. With small doses no effect is observed; a large dose paralyses the vagus; but stimulation of the coronary nerve is still effective. The conclusion drawn is that muscarin has a paralysing effect upon the nervous structures of the sinus as well as upon the muscle, but that a dose sufficient to prevent contraction of the sinus leaves the nervous action unimpaired.

The electrical changes produced by stimulation of the augmentor (accelerator) nerve when the heart is under the influence of muscarin are next considered. Experiments were carried out by stimulating the sympathetic of the frog or toad close to the vagus ganglion, and the demarcation current obtained from the ventricle. When the dose of muscarin applied to the sinus was just sufficient to cause a standstill, stimulation of the nerve produced a regular series of beats; when a slightly larger dose was used there was no visible effect, but a marked increase in the demarcation current; while, if the dose was still larger, neither mechanical nor electrical effect was obtained.

A similar series of experiments on the action of the augmentor nerve, when the auriculo-ventricular groove is clamped, and no muscarin applied, is then described, the author referring to a previous paper where it was shown that clamping of this groove would cause the ventricle to remain quiescent, and that subsequent stimulation of the augmentor nerve would produce a series of beats. It may be shortly stated that the results obtained are the same as those above described when muscarin was used, the result depending on the degree of tightness with which the groove was clamped; the same electrical change being observed when no obvious contraction took place. Stimulation of the intracranial vagus did not produce the same decisive effect as stimulation of the sympathetic, probably on account of difficulty in isolating the nerve, and its containing the roots of the spinal accessory, which, when stimulated, produce contractions of the various muscles it supplies, rendering the galvanometer readings inaccurate.

## NOTES ON PATHOLOGY.

By DR. R. E. CARRINGTON.

*(Continued.)*

### KIDNEY.

#### BRIGHT'S DISEASE.

The forms of kidney we shall describe under Bright's disease are as follow:—

1. Acute nephritis, or "large red kidney."
2. Chronic epithelial nephritis, or "large white kidney." (This is often congenital with interstitial nephritis.)
3. Chronic interstitial nephritis, or "granular contracted kidney," "cirrhosed" or "gouty kidney."
4. Small white kidney. (A mixture of 2 and 3.)
5. Cystic kidney.
6. Lardaceous kidney.

Besides these forms of Bright's disease, the following forms of renal disease are important:—

1. Acute suppurative nephritis, or "surgical kidney."
2. Hydro-nephrosis and pyo-nephrosis.
3. Tubercular disease.
4. Malignant disease.
5. Calculus.

Scheme for description of condition of kidney:—

1. Size of kidney.
2. Shape.
3. Colour.
4. Capsule.
5. Section (Cortical, Medullary).
6. Microscopical appearance.

#### ACUTE NEPHRITIS.

There are only two known causes—cold and scarlet fever. It is met with under other conditions, of which diphtheria is the most common. Probably acute alcoholism may be a cause, and, in rare cases, secondary syphilis.

*Description of Kidney.*

1. *Size* and *Weight* greatly increased, sometimes twice the normal size.
2. *Shape* normal.
3. *Colour* blood red.
4. *Capsule* strips easily, leaving smooth surface.
5. *Section* highly vascular, blood dripping away, so that the organ is sometimes described as "blood-dripping kidney."

The cortex is greatly swollen, and many tubes are full of hyaline casts or blood casts, or there are extravasated

blood-cells outside tubes. This condition is the earliest met with. After a time the blood-red colour disappears, and this is replaced by a yellowish white. The blood, however, collects in three places—Malpighian bodies, Malpighian pyramids, and stellate veins; so that these parts come out deeply red in the midst of the yellowish-white inflamed portions. The reason is that the epithelial proliferation distends the tubes, and squeezes out the blood from the vessels in their walls and causes it to collect in the three regions mentioned.

6. *Microscopically*, a distinction is drawn between scarlatinal and other forms of acute nephritis. Scarlatinal is called "glomerular nephritis." In this form the first change takes place in the Malpighian bodies, and consists in the proliferation of the epithelial cells covering the capillary tufts. Following on this, the connective tissue surrounding the capsule undergoes proliferation, and this is said to be especially marked around the interlobular arteries. The nuclei are said ultimately to develop into connective tissue, and so lead to cirrhosis. In addition to these changes, the epithelium of the convoluted tubules undergoes inflammatory changes. The first stage is "cloudy swelling." The protoplasm becomes granular and indistinct. Next, proliferation of epithelial cells takes place, and the newly-formed cells, instead of assuming the ordinary cubical shape, become ill-developed and present all stages down to the leucocyte. The protoplasm of the cells becomes first granular, but ultimately contains fat globules. Non-scarlatinal acute nephritis differs from above in that the tubal changes alone are present.

*N.B.*—The above is the orthodox description, but there is not the least doubt that glomerular changes occur in non-scarlatinal nephritis.

LARGE WHITE KIDNEY.

Chronic epithelial nephritis—branny, mottled, fatty kidney.

1. *Size* and *Weight* greatly increased (13—19 oz.).

2. *Shape* normal.

3. *Colour* more or less uniform, opaque, yellowish white. Sometimes the stellate veins on the surface are full of blood, and constitute a conspicuous feature. When this occurs, the kidney is called *mottled*.

4. *Capsule* strips readily, leaving a smooth surface.

5. On *Section*, cortex is found to be greatly swollen. The normal pattern is more or less lost, and the cortex is blurred. It also presents frequently alternating stripes of yellow and grey—the yellow parts being fatty changes in the epithelium.

6. *Microscopical appearance.*

(*a*) Epithelial changes are simply a more advanced condition of the tubal changes described under acute nephritis. Epithelial proliferation has become extreme. The cells are filled with fatty particles, and the production of granular leucocytes becomes a very evident feature, so that many of the tubes appear to be full of pus. Some of the tubes are blocked with hyaline casts, others with granular or fatty casts.

(*b*) Interstitial changes are secondary to epithelial, with the reservation of Klein's account of scarlatinal nephritis. They consist in the production of nuclei around the glomeruli and between the tubes, with thickening of the Malpighian capsules, and ultimately, it is said, in the development of the nuclei into fibrous tissue, so that in time the granular or cirrhotic kidney is produced. Interstitial changes which undoubtedly occur in chronic cases lead to dimpling and irregularities of the surface, which is often described as granular.

*N.B.*—Two disputed points are connected with the foregoing accounts.

It is universally admitted that acute nephritis (large red kidney) leads to large white kidney.

(*a*) It is disputed whether the large white kidney does not sometimes arise as a spontaneous chronic disease.

(*b*) Whether large white kidney ever becomes the contracted granular kidney.

*(To be continued.)*

# Sport.

## FOOTBALL.

After the customary Christmas break in our programme, operations will be resumed to-day (Saturday), by Rugby matches against London Scottish and Middlesex Hospital 2nd XV.; and Association against Clapton. Among the very strong team announced for the former fixture, we hail with joy the name of F. G. Swayne, of Cambridge fame. Fripp, Allport, Fawcett, and Instone are, we should think, the only other certainties among the forwards for the Cup team. H. B. Rygate ought to be pretty safe for a place, and the other three vacancies will in all probability be filled from Rogers, W. C. Swayne, Bligh, Wilks, and Pratt. It will be a difficult matter for the Committee to decide which two of these are to stand out, for there is very little to choose between them. A still harder task will be the choosing of the three-quarters. In our opinion, Evans in the middle and Mitchell on the left ought to be certainties; but which is to play on the right—Jordan or Prime? We will not hazard an opinion. They are both well worth their place and it will be "hard chedder" (as an honoured ex-captain expresses it) to whichever gets turned out—hardest on Prime who has played so regularly during the autumn. The Committee must diligently watch the next few matches and select every man on his merits. They are bound to send the best possible team into the field v. St. Thomas's on the 29th. Only in case of absolute equality should the consideration of regularity of play be allowed any weight in choosing between two men; but in such a case we do not hesitate to express our opinion that such a consideration should have *considerable* weight. Steele and Bryant at half, and Wallis at back, are of course certainties—so much so that the loss of any one of this trio would most seriously cripple the team.

**Guy's Hospital Gazette,**
*JANUARY 21, 1888.*

## OUR ILLUSTRATION.

IT is with great pleasure that we are able, with this number of the GAZETTE, to present our readers with a portrait of the late Dr. CARRINGTON. We have no doubt that every Guy's man, who ever knew or heard of our late highly-esteemed friend and teacher, will be only too proud to preserve it amongst their most valuable souvenirs of the Hospital.

It is unnecessary for us to give any lengthy account of Dr. CARRINGTON'S career, as one has already been given in the GAZETTE of April 2nd last. But we must add that he always took a deep and special interest in the GUY'S HOSPITAL GAZETTE. During his student days he was a frequent contributor, and for a period was its most successful Editor. He happened to hold that post at that critical juncture when the First Series of the GAZETTE was discontinued, for reasons which, perhaps, had better be forgotten.

Consequently, it is not surprising that, when the idea of restarting the GAZETTE rose some 14 months back, Dr. CARRINGTON was one of its most hearty supporters, and was Chairman of the first General Meeting held for considering the proposal. And, subsequently, when the Treasurer stipulated that a member of the Staff should be elected by the Students as a *Censor* of the GAZETTE, Dr. CARRINGTON was at once asked to undertake the duties, and was only too willing to do so. It was also through his instrumentality that the support of most of the members of the Staff was obtained for the GAZETTE — a support which gave a financial basis that boded well for the success of the enterprise.

We, of the "GAZETTE," owe a very great deal to Dr. CARRINGTON, and when that great shock—the sad news of his death—startled us on the 16th of March last, we knew we had lost our ablest and most willing supporter.

As a Physician, he only required to be known to be admired and loved, as he was by all Guy's men and patients who knew him.

As a Lecturer he was very popular, and we need no further proof of the value of his lectures than the eagerness with which his "Notes on Pathology," which we are publishing in each number, are read and preserved.

For a detailed account of his career we must refer our readers to the number of the GAZETTE above mentioned, that appeared on April 2nd, 1887. In closing, we may say, in the words of Dr. HORROCKS, that "his splendid scientific training, his thorough honesty in recording observations, the enormous amount of clinical and pathological material at his disposal, gave promise of his one day becoming one of the ablest Physicians in London; and that not only his widowed mother and sisters, but also Guy's, and the whole Medical Profession, sustained a great loss in the untimely death of Dr. R. E. CARRINGTON."

## Pathological Notes.

The following two cases of Perforation of the Vermiform Appendix, having many points in common, may be of interest.

### CASE I.

PERFORATION OF APPENDIX CÆCI—EXTRAVASATION OF ENTEROLITH—SUPPURATIVE PERITONITIS—ENTERITIS.

M., 10. Admitted for pain in the right iliac region, following an injury supposed to have been received at football a few days previously. There were signs of a bruise where he was kicked. Abdomen full—legs drawn up—much pain. P. 120. T. 101·8. Well marked symptoms of peritonitis. Had attacks of diarrhœa, but improved considerably until the twelfth day,

when severe diarrhœa set in, which lasted 2½ hours; and he died soon after.

*Autopsy.*—Diffuse suppurative peritonitis—several small abscesses situated among the adherent coils of intestine. On removing the small intestine, a large intestinal concretion was found lying loose in the abdominal cavity, close to the cæcum, and in immediate relation with the adherent Vermiform Appendix, which was completely divided two inches from its origin. About this region there was much suppuration due to the fæcal extravasation; and it had so thinned the walls of the cæcum bounding the abscess, that they readily gave way in examining it.

There was another very large abscess between the liver and diaphragm, which had perforated the right half of diaphragm, and communicated with right pleural cavity.

Other viscera healthy, except a little enteritis in various parts of the ileum, which was no doubt secondary to the suppuration around it.

### CASE II.

PERFORATION OF APPENDIX CÆCI—FÆCAL ILIAC ABSCESS — GALL STONES — CHRONIC SPINAL MENINGITIS AND MYELITIS.

F., 46. Admitted for paraplegia and various nervous symptoms, which had gradually appeared during the last three years. No definite onset of abdominal symptoms, but she had always suffered from constipation. Four months after admission, the temperature became very high, 103·2, and this was soon followed by œdema and emphysema of front of right thigh, and signs of deep suppuration. Patient gradually sank, and died a few days later.

*Autopsy.*—On removing the large intestine an abscess was found in the right iliac region, which was situated behind the first part of ascending colon. It had destroyed the iliacus and part of psoas, and extended down beneath Poupart's ligament among the muscles of the thigh. Upwards it reached the lower end of right kidney. The appendix cæci was tucked back beneath the cæcum, and adherent to the abscess wall. Its lumen, however, communicated directly with the abscess cavity. There was foul grey pus with intense fæcal odour, and much gas within the abscess, but no foreign body was discovered. There were no signs of disease in the bones or other organs in the neighbourhood.

Gall Bladder full of small calculi, one of which was impacted in the neck, but the duct was patent when this was removed. Extensive degenerative changes in the posterior median columns of cord, and some thickening of the membranes. Other viscera healthy.

## CARCINOMA OF THE ŒSOPHAGUS.

A PAPER READ BEFORE THE PHYSICAL SOCIETY, ON THURSDAY, JANUARY 5TH.

A short time ago while dressing under Mr. Symonds, I had the opportunity of seeing a case of epithelioma of the œsophagus, and my interest and curiosity in the subject were aroused by Mr. Symonds' admirable instruction both at the bedside and in the museum. I set to work to search through twenty years of Guy's Medical and Surgical Reports, and collected notes of 145 cases. Many of these notes are imperfect, partly on account of my own inability, and comparative ignorance of the subject at starting, partly because much of the work done by ward clerks ten years ago, especially on the surgical side, is so slovenly and slipshod as to be well-nigh worthless.

Taking the surgical reports first, we have 69 cases to deal with. We will divide them into two sets, putting in the first those which were treated from 1865–1875, and in the second those from 1876–1886 inclusive. In the first batch there are 30 cases; in the second there are 39.

Of the 30, 7 died in hospital, 22 were discharged, and 1 was transferred.

Of the 39, 23 died in hospital, 13 were discharged, 1 was transferred, and 2 went out to die.

So that it appears that three times the number died in hospital in the last that did in the previous ten years. How is this? Why, for the simple reason that whereas they were seldom recognised and still more seldom treated, now they are diagnosed and treated. Thus in the batch of 30, no less than 25 had positively nothing whatever done to them, while all of the 39 were treated except three, and of these three, one was to return in fourteen

days, another refused operation, and the other was too exhausted to be treated.

In the surgical cases of the last ten years, 14 gastrostomies have been performed, and 1 laryngotomy, while the rest have been treated with bougies, catheters, pieces of tubing, and Symonds' œsophageal tubes.

Of the 14 gastrostomies, 10 died and 4 were discharged.

Turning to the medical cases, and dividing them similarly into two sets, we have 27 and 45 cases respectively. Of the 27, 3 only were treated; of these, 1 suffered death by gastrostomy. Altogether, 15 of the 27 died and 12 escaped. Of the 45 forming the second set, 30 died, 14 were discharged, and the report of one is incomplete.

Figures are difficult to follow, but it is my duty to present them. We can, at any rate, remember these general facts:—

1. That we get more cases of cancer of the œsophagus now than of yore—84 against 66.

2. That a much larger number are treated—61 against 8.

3. That a greater number die in hospital—53 against 22.

4. That the operation of gastrostomy has been conspicuously unsuccessful, for out of 25 cases 21 died. One of these operations, I may remark, was performed by Astley Cooper.

Considering now the question of sex and age, and taking the surgical side first, we find that of 74 cases, 52 were males and 22 females. The youngest female was 33 years, the youngest male 39 years. The oldest female, 61; the oldest male, 70. Dividing them into classes according to age, we have from 30 to 40 inclusive, 9 females and 3 males; from 41 to 50, 7 females and 11 males; 51 to 60, 5 females and 18 males; over 60, 1 female and 15 males.

52 males. 22 females.

| Females. | | Males. |
|---|---|---|
| Youngest, 33 (3 cases)... ... ... | | 39 |
| Oldest, 61 ... ... ... ... | | 70 |
| Females. | | Males. |
| 30 to 40 years inclusive, | 9 ... ... | 3 |
| 41 — 50 „ „ | 7 ... ... | 11 |
| 51 — 60 „ „ | 5 ... ... | 18 |
| Over 60 ... ... | 1 ... ... | 15 |

From this we gather that the most common time for females is from 33 to 40, and the cases become less numerous as age advances; while the most common period for males is over 50, and below 40 it is scarcely known. But have we a sufficient number of instances to warrant our drawing so general a conclusion? This is a question of the highest importance, and to elucidate this point I have purposely kept the medical and surgical cases apart. If the general conclusion drawn from the *medical* fairly agrees with that furnished by the *surgical* cases, then we may conclude that we have a good working hypothesis. If, on the other hand, the two differ widely, then neither is true, and the mean of the two may also be false.

Out of 71 medical cases, 60 were males and 11 females. Of the females, the youngest was 42, the oldest 68. Of the males, the youngest was 30, the oldest 76. Here, then, is a wide difference.

Again, from

30 to 40 we have no females, but 3 males
41 — 50 „ 6 „ and 14 „
51 — 60 „ 3 „ 24 „ of whom 6 were over 60 years
Over 60 we have 2 females, and 18 „ of whom 6 were over 70, and aged respectively 71, 72, 73, 73, 75, and 76 years.

The two sets of tables do not agree, but each shews this—that women below 50 are more liable than those older, and that the most common time for males is between 50 and 60; and that the liability is greater for older than for younger men.

The disproportion between the number of male and female cases is striking. Altogether we have 112 males against 33 females.

Before proceeding with our subject, we shall do well to refresh our memories on the anatomy of the œsophagus. The œsophagus is a muscular tube lined with thick squamous epithelium, and extending for a length of 9 to 10 inches from the lower border of the cricoid cartilage to the upper end of the stomach. The distance of its commencement from the teeth is about 6½ inches. The trachea begins at the same level, and is 4½ inches long, *i.e.*, about half the length of the œsophagus.

The relations are:—

*In front*—Trachea and Left Bronchus, Pericardium, and Left Vagus.

*Behind*—Spine, Long. Colli M., Thoracic duct, Aorta and Right Intercostals. Vena azygos and Right Vagus.

On *each side*—Common Carotid and part of Thyroid, Recurr. Laryng. Ns., Vagus, and Pleura.

And on the *left* the Thoracic duct and Aorta.

We will next consider the positions in which cancer has been found in the œsophagus, and here I beg to warn you that the numbers must be received with the greatest caution—they are nothing more than a mere approximation, and the difficulty of dealing with this part of my subject has been great. One reason is that I here treat of nearly all the cases, and in only a portion of them was a *post mortem* examination made. Another is that in a large number the site of the cancer was ascertained by means of a bougie only, and I shall have to shew that although the information thus afforded is most valuable, yet it must not be taken for more than it is worth. But the chief reason is that in many cases nothing whatever was done to the patient, and even where the cancer was found by means of the bougie the worthy ward clerk did not always trouble to state its site; so that in these cases I have made my own diagnosis from the symptoms, and thus introduced a factor of serious error.

Dealing, then, with this question, and receiving the figures with every caution, we find out of 60 surgical and 55 medical cases that the site was at the

Cricoid in ... 27 surgical and 4 medical, making 31 in all,

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Bifurcation of trachea | } 17 surgical and 17 medical, making 34 in all | | | | | | |
| Cardia..... | 7 | " | 15 | " | " | 22 | " |
| That it extended from | | | | | | | |
| Cricoid to Cardia in | ... 1 | surgical and | 1 | medical | = | 2 | |
| Cricoid to Bifurcation | ... 0 | " | 1 | " | = | 1 | |
| Bifurcation to Cardia | ... 1 | " | 6 | " | = | 7 | |
| That it was found between | | | | | | | |
| Cricoid and Bifurcation in | 2 | " | 3 | " | = | 5 | |
| Bifurcation and Cardia | ... 3 | " | 8 | " | = | 11 | |
| And at both | | | | | | | |
| Cricord and Cardia | ... 2 | " | 0 | " | = | 2 | |

Thus we gather that the most frequent site is at the bifurcation of the trachea, the next at the cricoid, and the next at the cardia; that it may occur at any and even at two points, and that sometimes it is very wide spread.

What now is the nature of the cancer? The greater number of reports, bearing a diagnosis, are merely headed "Carcinoma," but of late years epithelioma is written, while in every case, examined microscopically, the cancer was squamous epithelioma. One case only was described as scirrhus near the cardiac end. From the structure of the tube we should naturally expect squamous epithelioma.

Let us now consider in some detail the symptoms, and first that of difficulty and pain in swallowing. We get histories of this kind (these histories are very important, and I say, with submission, that cancer of the œsophagus can be and is diagnosed from the history alone):—

"About 6 months ago a sudden difficulty in swallowing, which became gradually worse, so that in 4 months the patient was unable to drink liquids, except in very small quantities at a time."

"4 months ago difficulty in swallowing solids; unable to eat anything solid for 3 months."

"Retched very much after breakfast five months ago; three months ago great pain in swallowing."

"Dysphagia six or seven weeks ago; not swallowed anything for two days; very hungry; lost 2 stone in less than two months."

"For two months able to swallow only liquids and mince."

"Dysphagia seven weeks ago. No food for eight days."

"Pain about chest some months ago; worse on swallowing; vomiting after food; only able to take liquids."

"Dysphagia two months ago. In one month able to swallow liquids and jellies only; no food at all for eleven days."

"Two months ago a pricking pain on drinking liquids, and a wringing pain with liquids. No solids for six weeks."

"Dysphagia five months ago. Has swallowed nothing at all for five days."

"Choked while swallowing a piece of meat; unable to take solids since."

"Has lost 3 st. 3 lbs. in three months. Bowels not opened for five weeks. Difficulty in swallowing for three months; no solids for four weeks."

"Attacks of vomiting becoming more frequent until they always occurred after taking food; no solids for five months."

"Difficulty in swallowing, and hoarseness, five months ago; no solids for two months; even liquids come back."

"Nothing but liquids for six weeks; milk comes back after a time."

"Caught cold a few months ago. Doctor says it was a bad case of ulcerated sore throat. Could swallow nothing but liquids."

"Difficulty in swallowing; then vomited all solid food directly after swallowing; for the last six months brings back all fluids again; lost 8 st. all but 3½ lbs."

"Difficulty in swallowing for some months; lost 2½ st."

"5 months ago a piece of beef stuck; since then has had to be careful, chewing everything very fine and washing it down with water."

"5 months ago a piece of meat stuck; stayed there 9 days; could only take liquids. Went to a homœopathic doctor—pilules did him no good."

"Stoppage in throat 6 months ago; no solids for 3 months; last few months unable to swallow even liquids."

"4 months ago could not swallow solids once or twice a week. In 2 months this became constant; totally unable to swallow solids. Went to a doctor who advised him not to eat anything solid."

"7 months ago pain in chest and throat when swallowing solids, and within a week could not eat anything solid whatever. For 6 months the bowels have acted but once in 2 weeks."

"Keeps bringing up phlegm; unable to keep anything down for more than 2 or 3 minutes. Unable to sleep on account of phlegm."

"No solids for 40 weeks."

"Lived on liquid food for 8 months."

"10 or 11 days ago, whilst drinking, suddenly found herself unable to swallow, and the solid returned."

"Lost 120 lbs. in a few months."

"Lost 5 st. in 12 months."

And so on and so on, with this tale of human misery.

Most of these people seek local advice, and are treated for sore throat, weakness, strain, asthma, indigestion, consumption and everything but the right thing. Very occasionally a probang has been passed, but as a rule the affection is not diagnosed, until they come to hospital and then not always in times past.

"S. E., æt 40. Admitted July 6th, 1868; discharged July 15th, 1868. Strange sensation in the throat 6 or 7 weeks ago; takes liquids only. A constriction can be felt 1 in. below the epiglottis."

That is the entire report.

"H. W., æt 40. Admitted Aug. 10th, 1875. 8 months ago great difficulty in swallowing; can take pulpy food only; probang passed into stomach. Next day, cannot swallow solids, only liquids. Aug. 25th, has or thinks he has great difficulty in swallowing anything solid. Given Tr. Ferri and Inf. Quass, and sent out."

Report headed "Dysphagia. ? Hysteria."

Continuous hysteria lasting 8 months in a man 40 years of age!!

You always get a history of dysphagia, and although a patient may present himself to you with many other symptoms, yet careful enquiry will elicit the fact that a difficulty in swallowing was the beginning of all the trouble.

Vomiting, you will generally find, is nothing more nor less than a kind of regurgitation from the œsophagus. The tube is blocked with cancer, food collects above this obstruction, and either immediately, or after the lapse of a longer or shorter time, is forced—gulped, regurgitated—back again into the mouth and is spat out. If dilatation has taken place the food may remain there for some time.

The question of phlegm is important. If it be examined it is seen to consist merely of a viscid liquid. The patient's saliva collects in the œsophagus, becomes mixed with mucus, and is gulped up in a frothy state. The annoyance from this cause alone is often excessive and distressing, so much so as to prevent sleep.

One man was admitted for "continued spitting and inability to swallow. His phlegm is vomited and not coughed up."

"A good deal of phlegm, but no cough."

"Vomited Oj. of clear, frothy fluid."

It will shortly be seen that cough is a common complication of this complaint, and often the voice is much altered. If the cough, and phlegm, which now may come in part or even chiefly from the chest, and the extreme emaciation of the patient, should totally engage our attention, we shall be likely to diagnose phthisis. Inquiry will, however, show that before the cough came on the dysphagia was the trouble, and that the man had wasted considerably before his chest bothered him at all.

Dysphagia is the most valuable symptom for diagnosis; it may possibly not be present at the time of examination, but can always be found out.

We shall inquire after syphilis, and corrosive fluids, and in a girl or young woman may think of hysteria. But all these being absent—and I do not think they need distress us much—our patient being an adult (very likely an old one), with a history of a gradually increasing difficulty in swallowing, with loss of weight, and spitting of frothy mucus—I should declare for epithelioma.

You will have noticed that the dysphagia as a rule is comparatively slight at first, but steadily and often rapidly grows more severe; but that in some cases it is sudden. The patient was all right up to a certain day, and then at some meal, to his astonishment, he found a sudden difficulty, which has never left him since, but has on the contrary become worse and worse.

We have already had several instances of this kind. One more will suffice.

"Went to a wedding 14 days before Christmas. The first mouthful stuck in his throat. He succeeded at last in washing it out with whisky."

Another point is that the difficulty in swallowing commences with solid food, and that this goes on until only mince and jellies can be taken, then only thin liquid, and at last nothing whatever. This lasts for a while, and then liquids or even pulpy foods can be taken again for a short time, when the same thing happens once more.

R. E. WILLIAMS.

*(To be continued.)*

## OPERATION IN THE BUSH.

[The following is communicated to us by a Guy's man living in New Zealand, dated Poucke, November 20th, 1887.—Ed. Gazette.]

I was sitting a few Sundays ago, smoking after lunch, when Dr. W. drove up in a great hurry—he wanted some help in an amputation he wished to do on a Maori about 15 miles out. I put on my hat and was into his buggy and away we drove. The last few miles of our journey were too rough for wheels, so we rode the horses, our pockets filled with the necessary implements, and came up to the Maori hut at sundown. There we found the patient in a dirty little hut, and decided that if we were to operate it must be done at once. "But what would our antiseptic friends say of it?" asked my friend, an old Guy's man too, and I thought I detected a twinkle in his eye, though our only light was a single dip candle which was blown out four or five times during the operation. We had our patient on a stretcher near the door or entrance of the hut, merely a hole dug in the walls of thatch and mud, and our assistant, a takata (doctor) of great repute in the tribe, was with difficulty persuaded to hold the leg. When he saw blood he howled and fled, taking away with him the whole village except the mother of the patient who was beginning the "tangi" or wake outside. I gave chloroform, W. cut off the leg and I came and helped to pick up vessels, though the silk in W's old dressing case had a horrid habit of breaking every time we used it. I fancy it was the dressing case he had used in the surgery. The femoral caught me straight in the eye and ruined a new white hat completely, though I had to drive into town in it the next day. At last we had the flaps sewn up, and examined the leg we had removed; it was in a shocking state, gangrene had travelled up at a great pace, and we found that the man had slit up his thigh that morning with a broken bottle to relieve tension. The case went well afterwards, and we left the mother hopelessly drunk as we drove away, and committed our patient to the charge of the Maori takata who sneaked back just before we left. I had supper that night with W., and the conversation on antiseptics would have ruined the foundations of the Theatre at dear old Guy's.

# Green Extracts.

In the *Practitioner*, November, 1887, Mr. J. Poland contributes an article on the various methods of treatment of the sac in operations for strangulated Hernia. These are :—

1. Leaving the sac alone, a method condemned in uncomplicated cases.

2. Uniting the margins of sac by catgut sutures, applicable in old strangulated hernias when sac is firmly adherent to skin, in very large hernial sacs, and when intestines are closely adherent to sac.

3. Torsion of the sac after its operation, with ligature of its neck, useful in long standing hernia with wide orifices and in cases of great obesity.

4. Ligature of the neck of the sac as high up as possible with excision of the sac below the ligature; a method now used very extensively in England.

5. Ligature of the sac with excision of a ring-like process below the ligature, performed in large inguinal hernias, and in the congenital form when operated upon in early life.

The advantages of method No. 4 are—little or no increased risk in operation, peritoneal cavity shut off in a few hours, prevention of hæmorrhage into abdominal cavity, and of septic peritonitis, a tendency to radical cure, and a better adjustment of truss, hence a great increase of comfort to the patient.

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The *London Medical Record* for December, 1887, amongst other abstracts, contains the following :—

"*Rapid and simple method of reducing dislocations of the shoulder*" (Dr. Abril). Patient stands with a crutch in his axilla, whilst the Doctor makes slight traction downwards on the affected arm. Patient is then to let himself down as if he were going to fall on his knees, and as he falls the head of the humerus glides into position. The advantages are said to be that no assistants are required, pain very slight, and chloroform unnecessary.

"*Strychnine in Alcoholism.*"—A case recorded by Dr. Bullinger of dipsomania, cured by twenty injections of nitrate of strychnia gr. $\frac{1}{100}$, at first twice a day, then once only. The improvement appears to have been very rapid, and the effect lasted 65 days after the last injection.

"*Hysteria.*"—Dr. Wolferz records two cases of grave Hysteria which he has recently cured by cauterising the clitoris, in one case with solid nitrate of silver, in the other with the galvano-cautery. (Proceedings of the Riga Medical Society.)

"*Sugar fermentation in the Liver.*"—Experiments by Abeles shew that blood, taken directly from the hepatic vein of a dog, contains twice as much sugar as blood taken from the portal vein. Injection of morphia caused an increase in the sugar by one-third even after twenty minutes; choloform narcosis and dyspnœa had no effect. Catheterisation of the hepatic vein from the jugular vein shewed that blood so obtained contained very little more sugar than blood from the jugular vein, carotid artery, or crural artery. Hepatic venous blood is found to contain more sugar the slower the blood is removed, especially if the vena cava be tied in the abdomen. To estimate the amount of sugar in blood, a specimen is defibrinised by sodium acetate and ferric chloride, and examined by Fehling's method.

"*Hæmoglobin in Chlorosis.*"—Dr. Barbacci, as the result of experiments on the blood in chlorosis, draws the following conclusions :—

1. Amount of hæmoglobin is markedly diminished, as a rule, to less than half the normal amount.

2. Treatment of chalybeates raises the percentage of hæmoglobin invariably, and improves both the objective and subjective states of the patient.

3. In no period of pulmonary tuberculosis is the same low percentage of hæmoglobin found.

"*Infantile Dyspepsia and Diarrhœa.*"—Prof. Hayem recommends treatment by lactic acid, in doses of one drachm of a 2 per cent. solution, a quarter of an hour after feeding, five or six drachms to be given in the twenty-four hours. Prompt removal and disinfecting of all soiled linen is important. The green colour of the fæces is said, by Dr. Lesage, to be due to a particular bacillus, which he has isolated and cultivated.

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NOTE BOOK FOR DENTAL STUDENTS.—J. Rymer.—Messrs. Churchill.—Amongst the most recent additions to dental literature is a little book bearing the above title. Naturally we hail with no small amount of satisfaction a work (the first, we believe) emanating from the pen of an old Guy's man; and we should indeed be loth to allow the result of his labours to pass unnoticed in our columns. The "Note Book for Dental Students" is published, as the author distinctly points out in the preface, "with the express object of proving useful prior to examinations." For this reason, therefore, the information which it contains has to be restricted within very narrow confines. The earlier pages of the work deal for the most part with the histology, formation, and eruption of the human tooth, while occasional reference is made to Comparative Anatomy. A useful table of the data connected with the development of the teeth, individually and as a whole, is published in these earlier portions. The remainder of the book is devoted chiefly to the consideration of the "Distribution of Teeth" in the lower animals. We are inclined to think that in the selection of a title, Mr. Rymer has had to borrow from Messrs. Bailliere's catalogue of publications, wherein is to be found amongst other advertised works, one by Mr. Oakley Coles, entitled, "The Dental Students' Note Book;" and on a comparison of the two works, our conviction is rendered pretty absolute. The small work before us is clearly written, and accurately indeed; but contains several errors (the majority being printers' oversights), which, in a publication of so limited a compass, ought not to have been passed over. The book is printed in bold type, and neatly bound after the well-known style of its publishers.

# Passim.

DR. WYATT SMITH left England for Buenos Ayres on Monday, January 9th. Previous to his departure he gave a dinner to his friends at the Holborn. The following description of the dinner is by "One of Three Outsiders," and being a better account than we feel able to give, we take the liberty of borrowing it from *Vanity Fair*:—

"I had the proud privilege of being one of three "outsiders" at a medical dinner on Monday night, given by Dr. Wyatt Smith, of Guy's Hospital, who is proceeding next week to fill the principal medical office at the British Hospital in Buenos Ayres. There were about thirty medicos and surgeons present, a stockbroker, a private gentlemen, and myself, so that we three outsiders had each about ten "butchers" ready to fall upon us in case of need. Under the circumstances, I dined in terror. Had anything gone wrong with me that evening, there is no knowing what might have happened.

"Two things impressed me at this dinner. The first is that, although the faculty seems unable to benefit other people's digestions, it must have some secret device for the preservation of its own. As far as I could see, every doctor present partook of each one of the sixteen courses provided by Dr. Smith's liberality, and drank of each one of the nine wines with which the bounteous Ganymedes of the Holborn Restaurant kept filling their periodical glasses! I should like to know how they do it. I watched my two neighbours closely; and at dessert time I spotted one of them (who is a popular F.R.C.S.) taking a match-box from his pocket! That match-box contained some potent drug, a modicum of which I certainly saw my friend convey into his mouth in the form of a pillule, what time he drank his *cafe noir*. If only I could get the prescription which enables these Gargantuas to dine as they do, I should begin to believe in medicine.

"The other thing that struck me was the very hearty way in which these medicals seemed to hang together. The way they cheered themselves, each other, their profession, and their hospitals, might have been heard in this office. Drs. Taylor, Powell, Carpenter, Smith, Alexander, and Albert Martin, all contributed to the enjoyment with songs, recitations and other varied performances, and each one was cheered more heartily than another—which is saying a great deal. Perhaps this is why the faculty is so very jealous of outsiders—because it loves itself very well. But I have to thank Dr. Smith and his friends for an evening that would have been thoroughly enjoyable but for the grim dread aforesaid."

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TOWARDS the end of last year, thinking at once to please our subscribers and benefit the GAZETTE, we introduced a new feature in the shape of a Prize Competition. With the exception of a former Editor, no one, as far as we remember, has made any remarks to us savouring at all of disapproval of the scheme. But that it has not met with that appreciation we expected, is evident from the fact that, so far, we have received but two contributions. Hence these tears. We would remind our readers that all contributions to compete with these two should reach us before the 28th. If this lack of interest continues, we shall feel obliged, in deference to the apparent opinions and wishes of our Subscribers, to close the competition.

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IT gives us much pleasure to state that Miss Oxley (the present Sister Mary) has, together with Miss Lock of St. Bartholomew's Hospital, been appointed by the Secretary of State for India, to the charge of the nurses whom it is intended to introduce into the military hospitals in India. Sister Mary has our sincerest congratulations. We hear that the present Sister Naaman will take her place, the command of Naaman Ward being assumed by Sister Ruth, whilst Miss Oxford has been appointed to Ruth Ward.

WE give in this number the dates of the Cricket Cup Ties. And this reminds us that although the Cup has been won by our Eleven three times in succession, we are not yet the owners of it as we should be. We believe that so long ago as last November a Committee was formed for the purpose of collecting subscriptions to defray the cost of the Cup, two-thirds of the value of which we have to provide. As yet little appears to have been done, but we hope that the Members of the Committee will no longer remain inactive, and that the Cup will soon be in our possession, for it is only fair to those who have worked so hard for the honour of our School that some permanent trophy to commemorate their victories should exist.

As our readers are probably all aware, the new pathological laboratories are in course of construction, and are, in fact, nearly finished. But there is more good news in store. The Governors have consented to an extension of our physiological department, and this will probably take the shape of new buildings in connection with and behind the present physiological laboratories. We have as yet no details of the plan, but hope to supply them before long. This is a move that we have long been in need of, the existent arrangements being quite inadequate to supply the needs of the School.

## SECOND CONJOINT EXAMINATION.

The following is a List of the successful candidates:—

*Passed in Anatomy and Physiology.*—W. E. S. Cobb, W. W. Wingate.

*Passed in Anatomy only.*—H. Richardson, E. H. Greaves.

*Passed in Physiology only.*—J. P. Watkins, M. Jenkins, F. D. Lumley, W. D. Spurrell, H. S. Archdale.

## FINAL CONJOINT EXAMINATION.

The following candidates have completed the Examination and have taken their Diplomas;—

R. A. Sawyer, R. G. Hicks, A. Scott, J. W. Roberts, H. W. Drew, R. D. Mothersole, H. Joslen, H. B. Marriott, P. W. Streatfield, H. A. Edmonds.

*Passed in Medicine only.*—W. G. Thorpe, J. D. Cruickshank, W. P. Smart, E. Moss.

*Passed in Midwifery only.*—F. J. Nisbet, J. E. Moyse, H. N. Edwards.

## NEW REMEDIES RECENTLY TRIED AT GUY'S HOSPITAL.

My object in writing this article is more especially to give the pharmacy of those new remedies which have been introduced into Guy's.

There is no doubt that we are in the era of new drugs, and that there is a constant desire for something new. By the aid of chemistry new synthetical compounds are being constantly formed, and scarcely a month goes by without a notice of the results of the trial of some of these compounds. The Germans have especially distinguished themselves in the production of these new chemical remedies, and as they are in most cases patented, we are almost entirely dependent upon them for our supply. The greatest development appears to be in the class of antipyretics, and the later introductions are certainly not possessed to the same extent of those depressing qualities which marked the earlier ones. I will begin with the antipyretics Antipyrin, Antifebrin, Thallin Sulphate, Salol, Chinoline Tartrate, and Kairin.

*Antipyrin* (*Oxydimethylchinizine*).—This occurs in colourless laminæ, very readily soluble in water and alcohol. It possesses but very little taste. and that not unpleasant. The dose administered here is from 5 to 15 grains, but it is stated that 30 grains can be given. The usual form of exhibition is a mixture with simple syrup and water: ℞. Antipyrin, gr. xv.; Syr. Simp., ʒi; Aq. ad., ʒi—or it is prescribed as a powder.

Antipyrin is now used largely, and it appears that it has obtained a recognised place in materia medica. New properties, in addition to its antipyretic ones, are being discovered—as, for instance, in the treatment of migraine as a sedative, and in subcutaneous injection as a local anæsthetic.

*Antifebrin* (*Acetanilide, Phenylacetamide*) is now obtained in moderately large crystals, which are very sparingly soluble in cold water, rather more readily in hot, and easily soluble in alcohol, but precipitated by water. It has scarcely any taste. The dose is from 2 to 10 grains. It is usually given in the form of a powder, but it may be prescribed in a mixture suspended by mucilage: ℞ Antifebrin, gr. v.; Mist. Mucilaginosæ (Guy's), ʒj.

*Thallin Sulphate.*—It is a white, crystalline powder, with a very little taste, and a persistent odour like coumarin; very soluble in water, but far less so in alcohol. The dose is 2 to 8 grains. It has always been prescribed here in the form of a powder. Its solubility renders it suitable for administration in a mixture, but its taste may, perhaps, be objectionable. It can be readily made into a pill.

Thallin is very rarely prescribed at Guy's, and only as an antipyretic. It is said to have been used with great success for injections in cases of acute and chronic gonorrhœa, the formula being—Thallin Sulphate, gr. v.; Aq. ʒi.

*Salol* (*Phenylether of Salicylic Acid*).—This is a white, crystalline powder, insoluble in water, but soluble in

alcohol. Probably, on account of its insolubility, it has met with such little favour at Guy's. I do not think it has been ordered a dozen times. It has been spoken of as a remedy which appears to give the greatest promise of future importance, and that has done good service as a febrifuge and anti-rheumatic in doses of 15 to 30 grains, given in the form of powder.

*Chinoline Tartrate.*—This was one of the earliest synthetical antipyretic compounds tried; but it soon fell out of use. It is a crystalline, white powder, and has a most unpleasant taste.

*Kairin.*—This was used to a small extent, but, I believe, was found to possess very objectionable depressing qualities, and in consequence has gone entirely out of use.

Leaving antipyretics, I now come to other classes of remedies, and may mention—

*Urethane* (*Ethyl Carbamate*).—This new *hypnotic* is but very rarely ordered. It would be interesting to know the reason of this, considering that it is said to possess the great advantage over chloral-hydrate of not producing a comatose condition, but tends to induce a healthy natural sleep. It is a crystalline body, with an ethereal odour, and a taste like potassium nitrate. It is soluble in water and alcohol.

The dose is 18 to 40 grains, and it is prescribed in the form of a draught, with simple syrup and water—℞ Urethane, gr. xv.; Syrup Simp., ʒi; Aq., ℥i.

*Hypnone* (*Acetophenon*).—A very powerful *soporific*, said to produce a profounder sleep than chloral-hydrate. It is a colourless, mobile liquid, with an aromatic odour somewhat resembling essential oil-of-almonds; its action on the mucous membrane of the mouth is almost caustic. It is not soluble in water, but soluble in alcohol. The dose is 5 to 8 minims. It must be given in the form of an emulsion. The following is a formula: ℞ Hypnone, m. v.; Syr. Simp., ʒi; Mucil. Acaciæ, ʒi; Aq. ad., ℥i. It is also dispensed in gelatine capsules, which contain the Hypnone dissolved in Oleum Amygdalæ. This remedy has not been given more than half-a-dozen times at Guy's.

*Paraldehyde.*—This *hypnotic* is occasionally ordered. It is a colourless liquid, with a suffocating odour, and sharp, unpleasant taste. It is not very soluble in water, and when administered, requires to be suspended by means of mucilage. The usual form of draught is: ℞ Paraldehyde, ʒ ss.; Mist. Mucilaginosœ, ℥i. The dose is from ʒ ss. to ʒj.

*Iodol.*—A new *antiseptic*, said to be as effective as Iodoform, and without any odour. It is, however, very much dearer than Iodoform, and, as a consequence, very little of it is used. It is a greyish-brown powder, insoluble in water, but soluble in alcohol.

*Tinctura Strophanthi.*—This *cardiac sedative* has not at Guy's replaced the old Tinct. Digitalis. A considerable quantity has been used, but for some time the amount ordered has been very small. The strength of the tincture is 1 in 20, and the dose is 5 to 10 minims.

*Jambul.*—A new remedy for *Diabetes*. It consists of the powdered seeds of a plant—Syzygium Jambolum. The introduction of Jambul is due to Mr. T. Christy, 25, Lime Street, City. Very good results appear to have been obtained from its use in Germany and America, and at the present time it is being tried upon some cases of Diabetes in the hospital. It is administered in the form of powder in 10 grain doses.

*Tinctura Simulo.*—This is a reputed remedy for *Epilepsy* and *Hysteria*, and is also an introduction by Mr. Christy. The tincture is made from the seeds of the Capparis Coriacea, a plant growing in Peru. It has been prescribed in a number of cases, and its continued use would appear to indicate that it possesses some value.

*Chian Turpentine.*—This is a very old article of Materia Medica, and is mentioned in the Guy's Hospital Pharmacopœia for 1803. Some years ago it was brought into notice by Dr. Clay, as a remedy for *Cancer;* but the results did not appear to have been very satisfactory, and it fell entirely out of use. Dr. Clay has again recently asserted its power over cancer, and at the present time it is again being tried in a number of cases at the hospital. In order that there should be no doubt as to the genuineness of the drug used, the Chian Turpentine mixture is specially prepared by Southall & Sons, of Birmingham, who supplied the Chian Turpentine to Dr. Clay. It will, therefore, be interesting to know if the results at Guy's are the same as those of Dr. Clay.

H. COLLIER.

## NURSES' ENTERTAINMENT.

On Tuesday and Wednesday, January 3rd and 4th, "the Nurses'" Entertainment was held, and this took the shape of a dramatic performance entitled "The Silver Shield." The Entertainment took place in the Governors' Court Room, kindly lent by the Treasurer for the occasion.

The piece was kindly undertaken and acted by members of the Anomalies Amateur Dramatic Society. If any of us are not familiar with the Society as a body, at least we all know "Jimmy Bates," who has identified himself on so many occasions in hospital entertainments, and who, on this occasion, undertook the arrangement and general management of the "show."

The whole proceedings were an unqualified success, and everyone is to be congratulated who participated in the provision of so jolly an evening.

The piece chosen by the Anomalies was undoubtedly a good one, being Sydney Grundy's Silver Shield—a play strong in situation, and smart in dialogue.

The title of the piece is taken from the story of two knights, who, riding in opposite directions, pass a shield, hung upon a tree, and happening to meet some time afterwards dispute as to the quality of the shield they had passed, the one maintaining it to have been of gold, the other that it was silver: words lead to blows, and the quarrel ends in the death of both: someone then examines the shield and finds it to be gold on the one side, silver on the other.

It is not necessary to trace the plot of the play, further than that the author makes the most of the idea in the

many complications that arise in the progress of the acts, and to say that the interest of the play springs from the misunderstandings amongst the author's characters, occasioned by the partial observation of the allegorical silver shield, in which one side only is noted, and not the other.

The parts throughout were cleverly undertaken. Mrs. Pat Campbell's Alma Blake, the leading lady's role, was a bright and thoroughly interesting impersonation; though giving evidence in the first and second acts of the power she possesses, yet it was not until the third act that Mrs. P. Campbell showed her audience how well and thoroughly she had realised her difficult character.

Mrs. E. Renton, as Lucy Preston, was charming throughout her whole performance, portraying in her looks and acting the sympathy so essential to the character; and in her farewell scene to her home and husband, in the second act, rose to a point in her acting not often attained on an amateur stage.

Mrs. Gordon-Ascher played the part of Mrs. Dozey with a full appreciation of the humour that the author conceived for it, and was a thorough success, as was evidenced by the hearty applause she received from an appreciative audience.

Miss Stewart, as the waiting-maid, brought into prominence a character, that but for the delineation Miss Stewart gave to it, would barely have called for notice.

Mr. J. O. Grout (who by the way produced the play) earned, as he well merited in his character of the Rev. Dr. Dozey, very hearty applause; his entrance always being the signal for expectant enjoyment and loud and continued laughter. It was a wonderfully clever performance, and contributed no small share to the success of the evening.

Mr. Sam Whittaker in his portrayal of the by no means easy character of Dodson Dick, succeeeded as few other amateurs could have done, in presenting to the audience an intensely amusing as well as thoroughly conceived and artistic performance, keeping always honestly in view the author's conception of the character, and never degenerating into (what would have been so easy) buffoonery or burlesque: he was thoroughly and cordially appreciated by his audience, who showed by their loud applause how well they estimated his talent.

Mr. Curling Bates though not playing so long or important a character as his stage experience and talents would justify, yet did ample justice to the part of Ned Chetwynd and was particularly successful with his scene with Alma in the third act.

Mr. Easton's Sir Humphery Chetwynd was a fair all round performance, and had he succeeded in identifying himself more with the character of Sir H. Chetwynd he would possibly have been more successful.

Mr. F. Halse-Francis filled the role of Tom Potter, the artist, and played quietly and well. His make-up was very effective and he quite looked the part.

Excellent music and songs were provided during the evening, and many thanks are due to those who so pleasantly filled the intervals during the entr'actes.

# NOTES ON PATHOLOGY.

By DR. R. E. CARRINGTON.

*(Continued.)*

## KIDNEY.

### CONTRACTED GRANULAR KIDNEY.

Chronic interstitial nephritis, gouty, cirrhotic kidney.

1. *Size* and *Weight* are often more or less diminished, often extremely so. May not weigh more than two ounces. Half the normal weight is common.

2. *Shape* much altered. Reniform shape more or less lost. Form irregular. Surface granular.

3. *Colour* normal.

4. *Capsule* thickened, adherent; when removed tears away part of kidney substance.

5. On *Section*, the cortex is greatly diminished in thickness; in extreme cases to a mere shell. Pattern of structure lost. Tissue blurred and indistinct.

To above may be added two other characters:—

(*a*) Presence of cysts on the surface or in the substance of cortex, some microscopic, some size of pea or larger.

(*b*) Thickening of the arteries throughout the organ, and very often atheroma of the main renal artery, the smaller branches of which stand out like quills on section.

6. *Microscopically.*

1. There is "apparently" to some pathologists, "certainly" to most, a great increase in the connective tissue of the kidney. The tubes are everywhere separated by great numbers of nuclei or fibres. The different opinions arise in this way. The apparent fibrous tissue is said by Johnstone and Moxon to be resolvable into atrophied and shrivelled tubes. It is said by these observers that if high powers are used, all stages from a more or less healthy tube to the apparent fibrous tissue may be made out. In a section of granular kidney the so-called fibrous tissue certainly looks like normal fibrous tissue.

2. The walls of the tubes are found more or less thickened and fibrous; the epithelium either entirely lost or the cells altered in shape, granular or fatty.

3. Malpighian bodies. The capsule is more or less thickened and fibrous. The capillary tuft is atrophied and shrivelled, and an abnormal number of Malpighian bodies will be seen in the field, sometimes as many as seven or eight.

4. The cysts are very variable in size, and sometimes arranged in rows, like the beads of a necklace. They possess a thin wall, and there is an epithelial lining consisting of a single layer of flat cells. These cysts have various modes of origin assigned to them:—

(1.) That they are produced from the convoluted tubes of the cortex, which become constricted at intervals by the fibrous tissue, the intervening portions expanding into cysts.

(2.) From the Malpighian capsules, the flattened epithelial lining being very suggestive of this mode of origin (Wilks and Moxon).

(3.) That they are the result of overgrown dropsical cells (J. Simon).

(4.) Sometimes in the Malpighian pyramids bead-like rows of minute cysts are met with. These are supposed to arise from the looped tubes of Henle. According to Virchow the process is, that the contiguous walls of two or more tubes degenerate and atrophy, and by these means several tubes become converted into a cyst.

5. The vessels become greatly thickened. The cause of this is under controversy. The affection of the renal arteries is only part of a general change in the arteries of the body.

It is disputed whether—

(*a*) The thickening is merely hypertrophy of the muscular coat (Gull and Sutton); or,

(*b*) Thickening of the external coat (Johnson).

As a matter of fact both changes are met with, and in addition more or less atheromatous degeneration in the case of the larger branches of the artery

### CYSTIC KIDNEY.

Cysts are found in the kidney under four conditions.

1. Thin walled cysts, containing a clear fluid, varying in size from microscopical dimensions to a pea or hazel-nut, but found in the cortex of otherwise healthy kidneys.

Sometimes associated with cysts in the liver. (A case occurred at Guy's two years ago in which there were cysts in kidney, liver, cerebellum and pancreas, these organs being otherwise healthy). These cysts are of no clinical importance.

2. Cysts found in granular kidneys. These and their various modes of origin have already been described.

3. True cystic kidney is congenital, or met with in adults.

Congenital cystic disease is bilateral. Renders the fœtus inviable, and is associated with other malformations, *e.g.*, hare-lip, cleft palate, spina bifida. Both organs are converted into masses of cysts which relatively to the body weight are enormous. Virchow's explanation is, that this condition is due to atresia of the straight tubes of the Malpighian pyramids, and the consequent dilatation of the other tubes beyond the constriction, and thus the formation of cysts.

*Cystic kidney of adults.*

It is quite possible, though not proven, that this may be a late condition of congenital disease, which during fœtal life was not sufficient to destroy life, but which has undergone steady and progressive increase. At all events, this condition has no clinical feature, and is very often met with in an autopsy for some entirely different cause of death. But it is not uncommon for the final termination to be *uræmia*. This condition is bilateral.

*Naked eye appearances.*

1. *Size* and *Weight* are often enlarged enormously (3–4 lbs. common, 8–9 lbs. sometimes).

2. *Shape* is more or less irregular. The general renal shape is maintained frequently, but is often lost by the irregular projection of cysts from the surface.

3. *Capsule* is thickened and adherent.

4. *Section.* The organ is converted into a mass of cysts of very variable size and contents. Sometimes there does not appear to be a trace of renal structure. Sometimes a small portion will be found at the surface in some part. The cysts in size vary greatly. The contents vary greatly: they may be clear and limpid, or thick and viscid, or gelatinous. Colour straw-like, red, brown, or blood-stained.

5. *Microscopically.*

The walls of the cysts are composed of renal tissue in an advanced condition of interstitial nephritis, and are actually composed of fibrous tissue. They are always lined (if there be any lining at all) with flat epithelium.

The cyst contains degenerated epithelial and blood cells, and cholesterine. Chemically the salts of serum, and altered blood, probably never any of the urinary constituents.

*N.B.*—The probable position of the cystic kidney is, that it is a granular kidney in which cyst formation is out of proportion to the other changes.

## ANTISEPTICS!!!

Carbolic spray was falling fast,
As underneath the dressings past
A germ, who had his awful vice
Written in handbooks, more than twice,
"Cimeacitpes!"

"Oh, stay!" the sister said, "and rest,"
Smiting her antiseptic breast.
But mischief twinkled in his eye—
He was a germ of liberty
And Cimeacitpes.

"Beware *iodoform's quick puff!*
The all-absorbent cotton stuff."
This was the dresser's last good-night.
The germ replied—*far out of sight*—
"Cimeacitpes."

A body, with a septic wound,
In the *post-mortem* room was found,
Still grasping in his hand of ice
A bandage, with the strange device,
"Scitpesitna."

There, on the table, cold and grey,
Lifeless and horrible it lay,
While germs, triumphant, cried "Hurrah!
He died of septicæmia"—
"Scitpesitna."

H. G. D.

# Sport.

At a Meeting of the United Hospitals' Cricket Club, held on December 16th, next Season's Cup Ties were drawn as follows:—

FIRST ROUND.

A. May 22nd. University v. Charing Cross.
B. ,, 24th. Middlesex v. Guy's.
C. ,, 25th. St. Bartholomew's v. Westminster.
D. ,, 31st. King's v. London.
E. June 1st. St. Thomas's v. St. Mary's.

SECOND ROUND.

M. Winner of A v. winner of B, June 4th.
N. Winner of C v. winner of D, ,, 8th.
Winner of E, a bye.

SEMI-FINAL.

X. Winner of M v. winner of E, June 14th.
Winner of N, a bye.

FINAL.

Winner of X v. winner of N, June 25th and 26th.

The U. H. C. C. are to play 6 foreign matches.

The ground for the Cup Ties has not yet been chosen.

We gave notice that we mean to exercise our right of purchasing the present Inter-Hospital Cup for two-thirds its original cost, but as its original cost is not exactly known the matter was postponed to the next meeting which takes place in the middle of the present month.

## RUGBY FOOTBALL.

The Cup Team has been chosen as follows:—

*Back*—S. S. Wallis. *Reserve*—C. J. Prime.

*Three-quarter Back*—W. G. Mitchell, H. M. Jordan, H. L. Evans. *Reserve*—C. J. Prime.

*Half Back*—H. G. Steele, J. H. Bryant. *Reserve*—H. L. Evans.

*Forwards*—A. D. Fripp (Capt.), F. G. Swayne, A. Allport, J. Fawcett, N. Instone, W. Bligh, W. G. Rogers, G. M. Pratt, H. B. Rygate or H. Wilks. *Reserves*—H. B. Rygate or H. Wilks, W. C. Swayne.

GUY'S v. LONDON SCOTTISH.—Played on Saturday, January 7th, at Lee, before the largest crowd of Guy's men we have ever seen at any football match, bar Cup ties. We started down the hill, and so excellently did the team work together that the Scots were fairly penned into their twenty-five. In the unavoidable absence of Steele, Evans gave the onlookers quite a treat at half; his running and saving were alike admirable. Jordan at centre three-quarter showed us that he had got back into his good old form; he put in some really magnificent runs, one of which resulted, after a complicated and well-executed piece of passing among the forwards, in a try by Pratt, from which Mitchell landed a goal. After half-time the Scottish, aided by the hill, made matters very warm for a time. Their back division was very strong, and when once they got hold of the ball it flew from hand to hand with a rapidity and precision which baffled our men, and which but for the splendid defence of Evans, Jordan, and Wallis would have had much more serious consequences. As it was, Lindsay got a try, but no goal was kicked. Then our men again got the upper hand, though Prime and Mitchell were somewhat off colour throughout. Jordan continued to show up conspicuously, and, after a brilliant run right through their men, gained a try between the posts. Mitchell was again successful with the kick, and so when "Time" arrived we claimed our first victory on record over the London Scottish. Bravo Guy's! That is something to be proud of. The forwards, as a pack, have improved a lot, especially in dribbling, passing, and out-of-touch play. F. G. Swayne proved (as we predicted) a most valuable addition.

GUY'S v. CAMBRIDGE WANDERERS.—Played on Thursday, January 12th. A very enjoyable though one-sided game, on the Clapham Rover's ground at Wandsworth, resulted in a win for us by 2 goals and 4 tries to 1 try. Bryant got in soon after the start, and just before half-time Fripp got a try from a pass by Prime after a good run. Soon after change of ends, F. G. Swayne wound up a splendid dribble by gaining a third try, while others were added by Allport and Mitchell (2). As a dribbling practice the game did us good, but though they had 3 or 4 very good men, our opponents were not a strong enough combination to give us a hard game.

GUY'S v. EAST SHEEN.—Played on Wednesday, January 18th, at East Sheen. Again we had a walk over, winning by 1 goal and 4 tries to nil. H. V. Barr played three-quarter for our opponents, and fully confirmed our already expressed idea—that one of these days, perhaps sooner than appears likely, he will be a valuable man to Guy's. We also gave them W. C. Swayne to equalise the numbers—14 a side. There was not quite that amount of dash which we have been taught to expect in our men, and we will take this opportunity to warn them against the dangerous practice of only playing as hard as is necessary to win. Every man ought to play up throughout, as if the result of the match depended upon his side getting another try. Bryant, Mitchell, Jordan, Pratt, and Steele were responsible for the tries, and Mitchell for the goal; but 1 goal out of 5 tries is very feeble, especially as two of the failures were from tries between the posts. We must get a much better average than this in any tries we get against Thomas's.

GUY'S v. OLD LEYSIANS.—Played on Thursday, January 19th, at Balham. It was a mistake to play two days running. Very soon after the start it was obvious that our men were stale; indeed from start to finish we were never in it but got fairly beaten all round. Our tackling was shockingly bad, Wallis at back being a most conspicuous failure. Bryant and Jordan were the only backs that put in good work—and some of it was very good. Mitchell ran well once or twice and gained a try, from which he kicked a goal. The forwards appeared to be tired out, and F. G. Swayne who had not played on the previous day was the only one to show to advantage. We were beaten by 4 goals and 2 tries to a goal. Our opponents were undoubtedly a very strong team, but our men would, when fresh, be able to give them a tough match; let us learn from this how easy it is to get a team stale. Thursday's was not their true form; but they have only a week in which to regain the form they showed against London Scottish, if they can do that they will beat Thomas's next Friday, but they will find it a hard nut. Our weakest points now are tackling and coming round—we should feel much happier if we could see them go low at their men.

Guy's Hospital Gazette,

*FEBRUARY 4, 1888.*

## PNEUMONIA—EXPECTORATION OF LUNG TISSUE—THROMBOSIS OF FEMORAL VEIN—RECOVERY.

Perhaps in the whole range of medicine no disease presents so many points of surpassing interest as croupous or lobar pneumonia. Its ætiology has been for some time *sub judice*, and is still engaging the attention of many earnest and skilful observers. Is it to be ranked with those diseases which are known as specific and due to a bacterium or micrococcus; or is it still to be relegated to that dark corner in the causation of diseases which, in the absence of some more precise term, is styled idiopathic, and which is often synonymous with an equally indefinite expression, "due to cold"?

Even those who have seen a few cases cannot fail to be impressed by the sudden and violent onset of pneumonia, rapidly prostrating its victim, and in a few hours placing him in imminent peril. As the case progresses, too, and pulse and temperature rise, one cannot forget the urgent distress of the patient, with face bedewed with perspiration, more or less cyanosed and often delirious, struggling on against the disease. It may be that his vitality or the efficacy of the treatment is sufficient to carry him through, and the peculiarly-sudden defervescence occurs; or it may be that in a short time he becomes comatose and rapidly sinks—but equally unsafe is it in many cases to hazard a prognosis during the height of the attack.

In the post-mortem room, too, we notice in some cases how small an amount of damage to the lung tissue, and in others how much, takes place before the patient succumbs.

Lastly, the nature and gravity of the complications invest the subject with a subtle fascination.

The following case is appended on account of some uncommon features in the course and progress of the attack:—

William Secker, æt. 25, admitted into John Ward, under Dr. Pavy, on October 23rd, 1885, with pain in the left side, cough, and high temperature. There was nothing of importance in the family history, and his own, previously to admission, presented one point only, viz., a frequent exposure to cold. The cause assigned by him was a chill whilst sitting in a draughty railway-carriage four days before admission. This was succeeded by a feeling of illness and prostration, with rigors on the three following days.

On admission, he was a strong, well-built man, with the aspect of pneumonia, and a pungent, hot skin. In bed he lay on the left side. On examining the chest, the right lung area was normal, while on the left side there was a good resonance at the extreme apex, with a high-pitched note over the second space in front, impaired resonance in the axilla, and dulness behind from the eighth rib downwards.

On auscultation, we heard an exaggerated vesicular murmur over the right lung, and a similar condition at the left apex, while lower down on the same side there was tubular breathing over the fourth and fifth ribs between the axillary lines and behind from the seventh space downwards. At the sixth rib, midway between the spine and sternum, a pleuritic rub was heard, and bronchophony and increased tactile vocal fremitus were obtainable over the area of tubular breathing. It was doubtful whether some fine crepitations were not audible over the lower half of the left scapula. In short, there were all the signs of pneumonia affecting the lower lobe of the left lung. R. 34, jerky and interrupted; P. 110, hard; T. 103·0. Heart in its normal position and sounds healthy.

He was given an expectorant mixture, and ordered Pulv. Quiniæ Sulphatis gr. x. statim; Port Wine, ʒx.

On the following day, October 24th, it was noted that he had passed a restless night, and at 10 a.m., R. 40 P. 138, T. 103·2. Is taking nourishment well.

October 28.—Fine crepitations heard over the extreme right base, and it was feared that the disease was becoming bilateral. On the left side, signs of consolidation had extended further upwards. Alcohol increased to ʒviii. of brandy. At this time, too, the case became very grave from constant vomiting and restlessness, but no delirium. Dr. Pavy ordered Mist. Bismuthi Sedativa, ʒj, 6 *tis. horis, and Pil Doveri gr.* x., *h. n.*

October 31.—Mucous rales heard at left base. Vomiting continues, but is less severe. Temperature subsided in the last thirty hours to 98·8.

November 1.—After coughing violently for nearly an hour, he expectorated a greyish-black coherent, crusted mass, about 1 inch by ¾ in its largest dimensions. It had a very foul odour, and both before and after its expulsion he expressed himself as being "breathless." A portion of it was examined under the microscope and showed many indefinite cells, débris, and some evidence of fibrous structures. On boiling it with a moderately-strong solution of caustic potash, the greater part was dissolved, but the residue was found to be composed

largely of yellow elastic tissue. The chest was examined, but beyond large rales at the left base no change had occurred.

November 4.—Complains of dull pain in right leg and inability to move it. The limb was hotter and more swollen than its fellow. The next day, a painful cord was felt in the position of the femoral vein, and the right leg had the appearance seen in phlegmasia dolens. The moist sounds continued at the base as before, while the tubular breathing and bronchophony had decreased, but from the 9th rib they were still well marked.

November 9.—Pectoriloquy heard over the ninth left space, and amphoric breathing with consonating rales. For the next few days the condition of the patient improved materially, and on November 18th the consonating rales had disappeared at the left base, and there was no pectoriloquy or amphoric breathing.

November 20.—Last night on attempting to sit up in bed, he coughed up about 1 oz. of dark clotted blood.

November 22.—Expectoration slightly blood-stained. Cough rather frequent.

November 30.—Right leg has regained its normal size and suppleness. No induration of femoral vein can be felt. No expectoration.

December 2.—Improvement well maintained.

December 6.—Patient was discharged to-day. Nothing abnormal can be detected over either lung.

*Remarks.*—Firstly, were we justified in assuming that gangrene of a portion of the lung had taken place?

The microscopical examination of the expectorated mass, its foul odour, the physical signs of a cavity, and the hæmoptysis all point to a positive answer.

But, on the other hand, it may be urged, is it possible for a lung cavity to close so rapidly and so completely as it apparently did in this case. I would refer to a case recorded by Dr. Strange, of Gloucester, in the *British Medical Journal* of November 26th, 1887. A gangrenous abscess had formed in the right lung, as the result of the dropping into the trachea of a portion of a molar tooth during extraction. In six months it had attained such large dimensions, as to give the physical signs peculiar to such a condition over four square inches. The abscess cavity was then entered by a large trochar and a drainage tube placed in it. The subsequent progress of the case was rapid, and three months after the date of operation, Dr. Strange reports that "the breath sounds throughout the affected lung were entirely normal, except a little remaining dulness at the base."

What explanation can be given of the occurrence of the femoral thumbosis? Was it simply due to extreme weakness, and so parallel to the condition seen at the close of phthisis, or was some other cause present?

It will be observed that both expectoration of lung tissue and thrombosis occurred within a few days of each other.

May we *go so far* as to regard the particular case as one of those, in which the disease assumes *specific* and *dangerous* characters, as Dr. Sturges remarks in his monograph on the Ætiology of Pneumonia, in the *British Medical Journal* of February 17th, 1887. Evidence is gradually accumulating that many cases of pneumonia are not explicable simply by cold, alcohol, or privation, but that there is some other and more virulent factor at work, be it the pneumococcus or what not. Certainly we know that cases of pneumonia presenting at first no departure from the usual course of the disease may be followed by a very fatal train of complications of a septic nature. I allude to ulcerative endocarditis and cerebrospinal meningitis.

Returning then to this particular case, I would suggest that it was one of this class, and that the thrombosis was not merely passive, but due to a septic cause, and that the gangrene was either the result of a small embolus lodging in a part already weakened by the inflammation, or else that the local changes were so intense as to produce death of some part of the tissues affected.

A. H. Tubby.

## A CASE OF WIDELY-DIFFUSED PARALYSIS.

Admitted into Philip Ward, under Dr. Goodhart, for loss of power in arms and legs, and pain in back and limbs, December 16th, 1887.

*Family history.*—Unimportant.

*Previous illness.*—Struck his head severely in falling from a shed, thirteen years ago. Remained unconscious three days. Made a good recovery. No history of syphilis obtainable; no alcoholic history.

*Present illness.*—Began a month ago, when patient first noticed that he got fatigued easily, and felt generally unwell. A week afterwards, report says that he lost sensation in the finger-tips; the toes became similarly affected in a few days' time. Gradual loss of power in legs and arm followed, with pains in both shoulders. Was told that he had rheumatism.

*On admission.*—Strong, healthy-looking man (aged 27); intelligence about the average. Lies on his back, and is unable to change his position. Arms and legs described as "powerless"; is unable to feed himself. Speech, not affected. Appearance of eyes (pupils, fundus), normal; reaction to light and accommodation, normal. Motor functions—Considerable loss of power in arms and legs, the grasp being very feeble, and movement of arms limited; is unable to raise the legs against the slightest resistance. Muscles, flabby. No facial paralysis.

Sensation.—Much impaired in irregular areas over legs. No perversion of sensation. In arms, no anæsthesia, appears to be hyperæsthetic to electric current.

Reflexes.—No plantar, cremasteric, umbilical, or epigastric reflexes present. Knee jerk absent.

Report says, in regard to micturition, that actual loss of control is not certainly present. Defaecation—a loss of expulsive power alone mentioned.

*In respiration*, the diaphragm moves but little. Respiration otherwise normal.

*Circulatory system.*—Normal.

*Urine.*—Normal.

An undue prominence of the second cervical vertebra should be mentioned. It seems enlarged and thickened.

Patient has been in the habit of carrying sacks.

Dr. Pitt examined with the *galvanic* current. In many instances CCC>ACC, but in the flexors of forearm, triceps, and oppon. pollic. of left arm, and peroneus longus and soleus, of left leg, CCC=ACC. In supinator longus and ext. long. digit. (of leg) on right side, CCC=ACC, and in right oppon. pollic, ACC>CCC. To *faradism*, reaction for most part normal in arms; in interossei and oppon. pollic (both sides), reaction diminished. No trophic disturbances noted.

*Treatment*, at this period, comprised pot. iod. (grs. xx t.d.s.) and hydr. perchlor. (3j of liquor), with sedatives at night. Patient was noisy at night, perhaps to a greater degree than could be accounted for by pain, though he undoubtedly suffered.

On the 5th January, some difficulty in swallowing fluids was observed; after each attempt, a fit of coughing supervened, (possibly due to some impairment in efficacy of the muscles constituting the sphincter glottidis). This has since passed off.

On the 7th, galvanism was commenced. Measurements round arms and legs, the same on both sides. There has been no pyrexia.

This evening (Jan. 10) I went over him, as regards power and sensation more particularly. There is more power in the right than left leg; he is able to flex the former to a right angle, but the latter to a much less degree. Against even slight resistance he is powerless. Is unable to raise the legs from the bed in the extended position. *Sensation* fairly good above the knees, poor below them, and very poor on feet, especially toes and plantar surface. [Tested with a slip of paper.]

Wasting of anterior tibial muscles evident.

With regard to the arms, right is more powerful. Flexors stronger on both sides. Inability to completely extend second and third phalanges, and to separate fingers from each other. Grasp, feeble; stronger on right side. Inco-ordinate movement of hand on raising it to take a pen. Evident wasting of Interossei, especially of first, on either side.

*Main en griffe* deformity not present; hands droop, but wrists can be extended.

*Sensation.*—Much impaired over hands and fingers; fairly good elsewhere on arms.

Diaphragm does not act appreciably.

Patient is unable to raise himself, or turn; complains of pains on passive movement. There seems certainly to be some loss of control over sphincters at present. No trophic disturbances.

Plantar reflexes absent; cremasteric present, though sluggish. Umbilical and epigastric, present. *Sensation* good over abdomen, except at lowest part.

No knee jerks or depressed patellar reflex. No clonus.

In flexors and extensors of right and left forearm, ACC (39 cells)=CCC (39 cells). Right and left opponens pollicis, ACC=CCC.

In lower extremities (anterior crural muscles), ACC=CCC (39 cells each). In anterior tibial muscles, ACC=CCC (39 cells each) contraction weak. Legs respond, as a whole, less readily than arms.

To *faradaic* current, flexors and extensors of arms act well. Interossei and opp. pollic. on either side re-act feebly to same current (induction coil not drawn out). [There is wasting of thenar and hypo-thenar eminences both sides].

Muscles on front of thighs act well. Right anterior tibial muscles give good response; left require a stronger current. Sural muscles, the same.

The diagnosis in the case detailed is by no means easy. Various affections must be considered in arriving at it, and some of these I propose to review shortly.

*Multiple Neuritis.*—Against this there is the affection of the sphincters. Trophic disturbances, too (of skin, nails, hair), are absent. On the other hand, tenderness of the muscles and nerves on pressure is present, and, of the other symptoms, there are none which seem to me incompatible with the supposition of neuritis, with which, also, the subacute onset is consistent.

*Hæmorrhage into the cord or its membranes* need be mentioned only to be dismissed. The onset, in the present case, is altogether different from that of the diseases in question.

*Growths in the spine, membranes, and spinal cord.*—The very severe pain caused by growths in the bone and membranes is absent. No local tenderness or palpable tumour discoverable about spine. No evidence of primary growth, or of growth elsewhere. No history of syphilis or tubercle.

*Acute Ascending (Landry's) Paralysis.*—The (usually) rapid development was absent here. The pain, wasting of muscles, electrical changes and loss of sensation, are against this form of paralysis.

*Acute Atrophic Paralysis* (of adults).—The onset appears to have been too gradual for this. There is no history of an initial paralysis, and had there been one, it should by this time have cleared up, leaving, probably, certain parts to waste. Besides, in this case the paralysis is sensory as well as motor; and the sphincters are not commonly affected in acute atrophic paralysis.

The uncommon *sub-acute form* of the same malady has a progressive course; there is no affection of sensibility, and the sphincters escape.

*Progressive Muscular Atrophy.*—Any wasting that is now present was preceded by paralysis: in this the case differs from the above. The pains and irregular anæsthesia are also against it.

*Senile Idiopathic Muscular Atrophy* is altogether put aside by the absence of any family tendency, by the affection of sensation, by the fact that weakness preceded wasting—the latter being but small in amount, and irregularly distributed.

*Diphtheritic paralysis* is excluded by the history, by the fact that palate and ciliary muscles have remained unaffected.

*Myelitis—subacute or chronic.*—The gradual development of symptoms, the greater degree of affection of motor than of sensory power, the affection of the sphincters, the absence of *severe* pain and of spasms, are all in favour of the above diagnosis. The fact that both arms and legs are involved is rather in favour of a chronic *cord* affection.

*Chronic Meningitis.*—This would account for the pain, the motor and sensory symptoms, and the wasting of some muscles. At the same time, the pain in the back is much less than one would expect, and spasm does not appear to have been present at any time. But the absence of severe pain, and of spasms, appears to be not uncommon in cases where the dura mater is primarily affected (pachymeningitis; as distinct from the case where inflammation chiefly attacks the pia mater—chronic leptomeningitis). A diagnosis of chronic spinal pachymeningitis has been made (by Dr. Goodhart, and by others), and the inflammation has been more especially localized in the cervical region (cervical hyper-trophic pachymeningitis of Charcot and Joffroy). The local thickening about the cervical vertebræ may possibly be due to disease, and one might suppose that the phrenics are involved in the products of inflammation. A similar affection of the ulnar nerves (last cervical, first dorsal) would produce the wasting of interossei. The weakness of the legs would, of course, be due to pressure of the cord. If a wide-spread inflammatory process is put forward to account for symptoms, ft would probably be more rational to locate it in the cord than in the membranes. It is not plain why the knee-jerks should be absent, on the supposition that the main lesion is in the cervical region, but where jerks and reflexes are concerned the unexpected is quite likely to happen.

On the whole, I am inclined to hesitate between peripheral neuritis and chronic diffuse meningo—myelitis. Trophic disturbances, with the affection of the sphincters, appear to me to make the latter more probable. I should think that the pains in the muscles and nerves are quite compatible with this supposition. With regard to treatment, he is at present having gr. $\frac{1}{60}$ of sulphate of strychnia subcutaneously twice a day.

## A "VIVA" AT THE COLLEGE.

Perhaps the following account of a "viva" at the College of Surgeons may interest the readers of the GAZETTE. It was the experience of a rejected candidate last October, and was told me by himself, whilst I was spending the time after my "viva," and awaiting the result of the examination, he having been in the first batch up that evening, and having already known his fate.

I will first mention something about the "Surgical Anatomy." Examiners A and B—A examining and B marking. After being asked several anatomical questions, the candidate was asked to pick out a tonsil guillotine. This was done satisfactorily.

Ex. A: "Now, I want you to take out my right tonsil; how do you do it?"

Candidate (who was short, Ex. A being tall): "Well, sir, you are too tall for me; I must have you in a chair."

Ex. B, who seemed highly amused, brought a chair, upon which Ex. A seated himself. The Candidate standing behind the chair, said, "Now, sir, I intend taking out your right tonsil *from behind*;" upon which the Examiner remarked, "That's a peculiar method." Candidate: "That's how I was taught, sir."

(The Candidate explained to me that it was the usual method at one of the London Hospitals, at which he was a student.)

The Candidate proceeded to put his arm round the Examiner's neck, and as soon as he got the guillotine near the Examiner's mouth said, "Now, open your mouth, sir." This was too much for the Examiner, who jumped up. The Candidate, however, seemed equal to the occasion, and said, "Sit down, sir, I was not going to hurt you"—Ex. B meanwhile being convulsed with laughter. The bell now rang.

The night following; "Viva in Pathology," at the College of Surgeons. At the first table Candidate was asked:—

"Now, *suppose* you were called to a man who had received a kick in the perinæum, and you found a swelling there, what do you think would be the matter with him?"

Candidate: "I suppose he would be suffering from a ruptured urethra."

Examiner: "Suppose! There is no supposition at all. He *would be* suffering from a ruptured urethra. Well, how would you treat him?"

Candidate: "I should apply ice and give him opium."

Examiner: "Suppose he still kept on bleeding, what then?"

Candidate: "Apply more ice, and give him more opium."

The Examiner talked to him some time about his treatment, and then asked him the following:—

"*Supposing* you were called to a man who had received a stab in the groin, cutting through the femoral artery, what would you do?"

Candidate: "I should apply pressure."

Examiner: "How would you apply pressure?"

Candidate: "By means of a tourniquet.

Examiner: "And how long would you leave it on?"

Candidate: "Oh! for two or three hours."

Examiner: "Then what would you do?"

Candidate: "I should take it off."

Examiner: "And what do you think would happen?"

Candidate: "Why, ten to one, it would bleed again."

Examiner: "*Ten to one, indeed! A hundred to one!* Of course it would bleed. What would you do next?"

Candidate: "Cut down upon the artery and ligature both ends."

Examiner: "Why did you not say so at first?"

The next question was;—

"*Suppose* you were called to a man who had received a wound of the abdomen, and whose intestines were protruding, what would you do?"

Candidate: "What part of the abdomen, sir?"

Examiner: "Never mind what part; the intestine is protruding; what would you do?"

Candidate, who, on repeating it to me, said, "I thought he (the Examiner) was one of those antiseptic beggars, so said, 'I should *turn on the spray* and wash the intestine with carbolic 1 in 20 and then return it.'"

Imagine the shock to the Examiner, who is well-known as being especially averse to the "spray."

Examiner: "How would you stitch up the abdomen?"

Candidate: "With a continuous suture, of course."

Examiner: "Would you stitch through the muscle?"

Candidate: "No."

Examiner: "Why not?"

Candidate: "Because most likely the stitches would tear through."

Examiner: "And what would you do with the peritoneum?"

Candidate: "Oh! I should leave that alone."

Examiner: "Why?"

Candidate: "Well, most likely the man would get peritonitis as it was, and if I were to stitch up the peritoneum he would be sure to get it, so I should leave it alone."

The bell now rang.

Examiner: "You may go now, sir. Take this paper and go to the next table."

*Table II.*

Examiner (reading the paper): "I am afraid you have had rather a hard time of it at the other table."

Candidate: "*My word, sir, I have had a doing.*"

Examiner: "Well, I'll ask you something quite different. What is this?" (showing Candidate a specimen of stricture of œsophagus.)

Candidate: "That is stricture of œsophagus."

Examiner: "Quite right. What are the causes of stricture?"

Candidate told me, "I gave him 16 or 17 different causes, *which made him open his mouth.*"

Examiner: "What kind of a stricture is this? What do you think it is due to?"

Candidate: "Well, it *can hardly be spasmodic*, or else it would have gone off before now, especially as it has been in spirit for some time—I should say that it was due to some corrosive liquid."

Candidate was next shown a specimen of the lower part of the rectum with hœmorrhoids.

Examiner: "What is this?"

The Candidate, who by this time was somewhat desperate, took up the specimen, looked at it, put it down, and in despair said, "I don't know."

The Examiner, who was very good natured, patted him on the back and said, "*Come, don't throw up the sponge like that,*" to which the Candidate remarked that he had already thrown up several sponges. He had another look at the specimen and "spotted" it correctly, whereupon the Examiner remarked, "You see you know it if only you would be careful."

The bell now rang.

The Candidate got referred for twelve months. He said he *expected six* months, but not twelve. He concluded his remarks in the following words:—

"The conclusion that I've come to is this, that simply because a man passes the College of Surgeons, that's no reason why he should be let loose on the general public; and I maintain still further, that because a man fails to pass the College of Surgeons, that is no criterion that he's not fit to be let loose on the general public."

The above was told me in a most deliberate and sincere manner, and from the way in which he spoke, I fully believe all happened as stated. Of course, I have had to suppress several adjectives, interjections, epithets, etc., which he made use of pretty freely the whole time. E.

## NOTICE.

We have to thank many contributors for articles which we are obliged to defer for want of space.

# Passim.

Last week, in our notice of Dr. Carrington, we stated that he was the editor of the Gazette at the time of its suppression. This, it would appear, is an erroneous statement. Dr. Edward Penny, writing to us, says: "Referring to the occasion on which the First Series of the Gazette came to an end, you say that the late Dr. Carrington was the editor. This was not the case. Dr. Carrington must, I think, have held the post some two years earlier; but, at all events, at the period in question the editorship was in the hands of my late friend, C. H. Downes, whose death we deplored some four years ago." We are very thankful to Dr. Penny for this correction, and take the first opportunity of publishing it.

We have had a letter from Dr. Rymer in reference to the notice of his book in our last issue. He states that the review in question charges him with plagiarism, and he goes on to say "it is quite correct that Mr. Oakley Coles did bring out a Note Book for Dental Students, which has long since been out of print; but I will conscientiously say that I have never possessed, nor even read it; so should the two books bear any resemblance, it is merely a coincidence, as no matter was taken from that source." We are sorry that Dr. Rymer should have entertained such an idea, as the suggestion of "cribbing" was very far from our minds when writing the review. We regret that our words should have borne such a construction, and in justice to Mr. Rymer we hasten to remove it.

We wish to direct the attention of our readers to the forthcoming examinations for the Beaney, the Michael Harris, and the Golding-Bird prizes. The Beaney prize for Pathology is of the value of thirty guineas, and open to fourth and fifth years' students. The Michael Harris, of the value of £10, for Anatomy, is open to men in their second year. The Golding-Bird prize, which is offered this year for the first time, is a memorial prize founded by the widow of the late Dr. Golding-Bird, F.R.S., Assistant-Physician to this Hospital, 1843–1854. It consists of a Gold Medal of the value of £13, and a sum of money of about £20. It is open to students in their fourth year, the subject being "The Methods of Diagnosis in Disease." The subject is a most appropriate and well-chosen one, and we hope it will lead to a spirited competition.

We are glad to understand that the fund for buying the Inter-Hospital Cricket Challenge Cup has at last been opened. The amount required is £35, which is two-thirds of the original price of the cup. We trust that Guy's men will prove equal to the occasion. In our next number we shall publish a list of contributors, in which we hope to see the names of many old Guyites. Subscriptions should be sent as soon as possible to Mr. W. J. Scott and Mr. Frank Colclough.

Dr. Pye-Smith having kindly read the papers submitted to us for the Competition, has decided that the article entitled "Pneumonia," which we publish this week, is the best. The author of this paper is Mr. A. H. Tubby, and to him the prize of one guinea has been forwarded.

## PHILOSOPHIA MEDICI.

### REFLECTIONS AND NOTES

By Walter Moxon.

1857 to 1869.

VIII.

A use of publication or communication of thoughts is this—that when we find that another thinks the same new thought as we think, it becomes a much more stable possession of ours, and we tend to make another fresh step. It is fertilised.

A man's proper aim, then, is not a problem, but an item of thing to be done—that is, so far as his personal satisfaction as one living creature goes. When we fall

into the blues over general questions, we are troubling ourselves with cares which belong rather to the gods than to men. That is, a proper care for mankind at large, or some other such vague entity; but to any—you or I—it is proper to do a this or that, and, sooth to say, his nature demands, and will have, a thing to follow which is sensible to the senses; for these, as I have shown myself long ago, alone keeps him sane. Under Providence, my child, it is true that the substantial and real value of your mental gear is just the reverse of its "elevation" towards the abstract and pure.

What we ultimately test a man's character by is whereunto we shall go by following him, and mostly, we at once see, we should only get to petty confusion in him. Such are the fools. But with many we see we should go fast and jaunty enough—but to a bad end. Such are the evil. Some few we feel sure that we should go steady and patient to reach up to the beautiful light and sweetness we want. Such are the good.

Things come and go, grow and fade. Justice and right and honour, alone are good.

How well we can glimpse at the origin of evil and ugliness in Nature by seeing how our own best motives may, and do, become extravagant, and grow out grotesquely under our own conscious observation; quite, in a way, parallel to that in which a nose or a chin becomes absurd on unfortunate faces.

The upper classes in all nations appear to enter into the priestcraft of the time, and support and adapt it as their own in their minds. There is the same system of motives in action to keep up religion. They, and the priests alike, are bound by identification with existing interests, which carry with them an intimately adapted play of motives that address every high faculty of a cultivated man's better nature. But for religion all is so low in life.

It is to be remembered by all who would write moral guidance and encouragement for others from the standpoint of culture they themselves have attained, that whoever reads their sentences will adopt them with the light and experience they have on their part reached, and so the effect of the saying on the mind of the recipient and on his own conduct may be very different from the motive they woke up into the utterance.

What is meant by freedom, and the enthusiasm it excites, is this; That each citizen should have a good private conscience; that the Nemesis and Moira may have a direct voice in his soul. The results of his personal misdeeds may appeal at home, at his own door, and that honour may have a voice in his own bosom. For tyranny, whether it be priestly or civil, throws the people for their habits upon the higher powers, and these higher powers are ever guiding them to any pleasures that may keep them diverted from the responsibilities of personal judgment. It means also an identification or morals with politics—as see the French Emperor's offer to attack Austria, and the *Saturday Review's* comment that a constitutional government could not have done it. But what poor morals—*vide* Paraguay. So it seems that individual man knows he is bad enough, but sees that his wish towards another is likely to keep the other one right. This is the best foundation of theory of constitutional government.

Which have done the bloodiest deeds—Kings or Commonwealths? The individual conscience, or the common conscience of the compounded individual, Mr. H. is making out a city or nation to be. If, as he says, the collection of people can be acting more wrongly than any of the individuals, that is a presumption in favour of monarchy—nay, of absolute monarchy, such as that of Napoleon.

# Correspondence.

*To the Editor of* GUY'S HOSPITAL GAZETTE.

## ANTISEPTICS.

SIR,—Does the spray provide a fluid surface to a wound, which is unfavourable to the growth of those germs which fall upon it; or does it really kill the germs in the surrounding air?

Has the state of the breath of the operator any effect on the wound he makes? May it not carry germs from his respiratory passages into the wound?

If the spray prevents germs coming to a wound, will it not also prevent the dissemination of germs from septic wounds into the air, during the process of dressing them? Should it not then be used in the dressing of wounds containing infectious germs?

How far may septic wounds be rendered antiseptic by treatment? May not skin diseases due to the presence of fungi be more frequently treated on purely antiseptic principles, dressed under the spray, etc.?

As we sometimes require a more active stimulation of wounds, is it not possible that the presence of certain germs may act as a healthy stimulant in some cases?

Do antiseptic solutions tend to kill the leucocytes that are brought forward to eat foreign organisms, etc., in a wound?

H. G. D.

## UNIVERSITY EXAMINATION.

SIR,—The correspondence about the examinations of the University of London, which has lately appeared in your columns, shows that there is a certain feeling of dissatisfaction with them, as they are at present conducted, and has emboldened me to offer a few remarks.

The examination which seems to have attracted most criticism seems to be the Intermediate Examination in Medicine, more commonly known as the 1st M.B., and the course at present adopted, of offering an Honours and a Pass Paper in each subject—the chief cause of complaint.

Some time ago I enquired of a prominent member of the University—a late Examiner—the reasons which led the Senate to adopt such a course in lieu of the old arrangement of separate examinations for Pass and Honours He said that the chief reasons were--

1. A desire to get the examination over more quickly, more particularly for the advantage of those men who were not resident in London, and who, under the old course, were obliged to make a long stay, if they wished to compete for Honours, after getting through the Pass. Of course, however, curtailing the period is to advantage of all, Examinees and Examiners alike.

2. To prevent men, who were not likely to get Honours, from going in with the object of annoying unpopular Examiners, and wasting their time, by giving them a few pages of drivelling nonsense to read—(you may, perchance, scoff at this, but I have known it done).

3. That a similar scheme has worked well in the other faculties.

I would submit that this scheme, though, doubtless, very satisfactory from the Examiner's point of view, is unjust to the student. Let us consider the case of a good man, yet modest withal, who goes up for the examination. In each subject he is presented with two papers—a Pass and Honours. He probably finds that he can do either; but, knowing that for the latter there is a higher standard, takes the Pass Paper, and thereby forfeits all chance of appearing in the Honours' List. Should he, however, take the Honours' Paper, he may fail to pass, although he could have got through had he taken the easier paper. These objections are ignored by advocates of the present system, who say that the University cannot be expected to consider men who are on the border line; but I think that in so doing they are unjust. A man who, on the old system, would have got through, and possibly might have got Honours afterwards, is ploughed—the result of his desire of distinction.

The plan I venture to suggest is to have only one set of questions on each subject—if necessary, let some of them be harder. Let the man who acquits himself best in any subject have the medal for that subject. Let all who attain a certain (high) proportion of marks be placed in the Honours' division in that subject, and arranged in order of merit, as is at present the case with Honours' examinations; and let all the remainder, who simply attain the minimum proportion of marks, pass. By this plan, it seems to me, that the whole examination would not take any more time than the old Pass examination; the Examiners would be spared the labour of setting and looking over a double set of papers, and the whole list would be published complete, instead of coming out in driblets.

Of course, there may be practical difficulties in this plan, of which—as I am not, and never shall be, an Examiner—I am not aware; but I cannot think that they are insuperable, and I am sure it would be much more convenient for the student,

So much for the conduct of the examination; next comes the question of their frequency.

Why should the University of London be the only one which holds its examinations but once a year? Other Universities (notably Cambridge) hold examinations twice a year, and even the Royal College of Surgeons (which generally seems to think the convenience of the student the last thing to be taken into account) examines candidates for its Fellowship *twice* a year.

Surely all the University examinations, with, perhaps, the exception of that for the M.D., might be held once every six months; and if the University cannot afford the extra expense, let them slightly increase the fees paid by candidates. At present, to take the M.B., B.S., costs £22—almost exactly the sum formerly paid for the M.R.C.S., pure and simple, so that a moderate increase could hardly cause much grumbling.

I must apologise for having filled so much of your valuable space, and can only hope that my crude notions may give rise to some discussion.—I remain, yours, &c.,

T.

## "PREDISPOSITION AND GERM PLASMA."

SIR,—Perhaps your readers are all quite tired of Predisposition and Germ Plasma. If they are, pray burn the following remarks. If, however, they are not, I should like to add a few words to the amicable battle between Mr. Starling and myself. The subject is really a practical one, for if Mr. Starling's position is the right one, then when we treat a habitual drunkard or a man with early gout, we are treating him for himself alone. If, however, my view (the one commonly accepted) is true, we may by stopping the pathological changes which are beginning in the parent organism be preventing diseases in the next generation.

In my first paper I had accused Mr. Starling of offering "Predisposition" as an explanation of inheritance, and I was glad to learn from his paper of December 10th that I had here misunderstood him.

In the latter paper he deals more fully with the question, but as he still fails to satisfy me I should like once more to state my difficulties.

Mr. Starling takes the case of a man who had a blow on the head, and then developed insanity and begot insane children. This man. says Mr. Starling, went mad because he was before the blow predisposed to insanity, and the very fact of his doing so shews, says Mr. Starling, the existence of a previous instability of nervous equilibrium.

Now, I contend that this kind of argument is entirely inadmissible. If we are to discuss clinical facts in this fashion we shall soon be treatiug over again the endless mazes of "critical days," "atmospheric influences," and "diatheses." Investigation in any scientific sense becomes impossible when the enquiry into concrete causation is blocked by an abstraction. And with predisposition, thus established *a priori*, it is natural enough that Mr. Starling should have failed to find any evidence that too much indulgence in matters of diet will set up gout in a man's descendants. If I were to shew him half a dozen cases of parents who, having eaten and drunk till

they themselves got gout, had then begotten children who n time became gouty in spite of abstemious living, such cases would prove nothing to him. The same magic word, which in the above example made the head injury to be as though it were not, would soon make an *a priori* clearance of the too liberal tables of the gouty parents. Even if I could bring before him cases of parents who, at first being temperate, begot children whose lives were throughout free from gout, and who then took to self-indulgent ways got gout themselves, and begot other children who in due time became gouty—even these, I fear, would not carry much weight with Mr. Starling.

He would, I fancy, reply that the germ plasma which went to the making of the first batch of children was healthy germ plasma, but that that which had to do with the second set was "tainted germ plasma." If then I were to ask for evidence of this "tainted" germ plasma I should be referred to the gout in the children, and so on round and round in the original circle.

The attempt to explain hereditary gout or insanity, by supposing functionally produced peculiarities to be transmitted, is at least to deal with facts which can be observed, with terms which can be defined, and with propositions which can be proved or disproved, although such explanation may still be far from final; but surely it is not hypercriticism to say that "tainted germ plasma," as the cause of predisposition, is at present quite incapable of proof or disproof, that no definite idea can be conveyed by the expression "tainted," and that observation gives no evidence whatever of the existence of the change which is hinted at, rather than described by this metaphor of "taint" in the germ plasma.

But even yet there are further difficulties.

For the sake of argument let us suppose that some shadow of the ghost of a meaning does belong to "tainted germ plasma," and in short that the subject does lie within the scope of rational investigation. Then the first question to arise will be "How comes it to be tainted?" No "taint" can be derived from the environment of any modern germ plasma, for "the multicellular organism itself is but the appendix serving for the protection and nutrition of the everlasting, immortal, germ plasma."

The very gods in Olympus, one would think, were not more safe from risk of earthly taint. If, however, we go back far enough in the pedigree of the race, we reach an epoch of single celled life when the germ plasma and the organism were one and the same, and then the germ plasma was not insensitive to the changes and chances of its environment. But only "those characters which exist in potentiality in the germ itself can be handed down to successive generations," and during the epoch of transmission through the multicellular organization of humanity it can have acquired no taint, for germ plasma is continuous and ever unaffected by man's ways of life. Thus the problem for Mr. Starling is as follows.

Unicellular organisms capable of receiving characters through their reaction to environment being granted, and granting any amount of sexual intercrossing, while not supposing any functionally produced modifications among multicellular organisms to be transmitted, let us have an explanation of hereditary gout. Let us not have merely an abstract formula by which the innate potencies of germ plasma are neatly epitomized in phraseology more comprehensive than precise, but an account of the facts which shall be capable of application to the known natural history of the disease.

Until this is given us the old hypothesis of acquired modifications, transmitted from parents to children, has one great point of superiority over the new, which I think even Mr. Starling must admit. Upon the old hypothesis we are left with only one unsolved problem still before us, namely the old, perhaps, insoluble difficulty of how a fertilized ovum can convey the qualities of a parent to the child, the actual rise of these transmitted qualities being matter of observation. On the new hypothesis, however closely connected were the habits of the father with the gout which he acquired, we are forbidden to look to the father's habits for the *explanation* of the gout in his children. In both parent and children we are told to look, for the rise of the gout, to some peculiarity in the germ plasma of the family, for the origin of which we are referred back to those dim and distant courses of the past, when the unknown unicellular organism of the past acquired unknown peculiarities by the action of unknown environing conditions, and this I contend cannot be called an explanation. We have two unsolved problems where we had only one, and the rejection of the old position for the new commits us to the fallacy of fancied explanation called "ignotum per ignotius."—I am Yours,

R. J. RYLE.

## CYSTIC MALIGNANT DISEASE OF THE NECK.

The following cases occurred in the Hospital last year, and are of interest in connection with the subject of Primary Cancer of the Neck:—

1. Edmund Berry, 43, always enjoyed good health till two years ago, when he noticed a small hard lump on right side of neck, which has gradually enlarged, without causing much pain. When admitted, there was a tumour the size of a hen's egg between the mastoid and clavicle, in the position of a thyroid swelling. It is underneath the sterno-mastoid, but there is some doubt as to its movement on swallowing. It is tense and elastic, with questionable fluctuation. Skin hot over it. An exploratory operation was performed, and the tumour incised. About an ounce of yellowish fluid escaped. It was found impossible to remove it, owing to adhesions to surrounding parts, so the cavity was drained. After some weeks the patient left the Hospital. The wound was not closed, but was slowly filling up.

*Microscopic Examination.*—The fluid contents of the tumour contained chiefly fatty matter and debris; but there were many small, round and oval cells. A piece of the wall of the cyst was also examined. This showed alveoli and long cylindrical masses of large spheroidal epithelial cells embedded in a dense fibrous matrix. The

growth invaded the muscular tissue around it. Some of the cylinders were remarkably narrow, so that in places there were only two cells abreast.

2. John Jackson, 72, was admitted with a large tumour on the right side of the neck. Always enjoyed good health till seven months ago, when he noticed a small swelling, about the size of a pea, behind the sterno-mastoid. This has grown rapidly within the last month, and caused a good deal of pain.

*On admission*, there is a large tumour extending from the level of angle of jaw to clavicle. It approaches the middle line, just below the thyroid cartilage, and its posterior border is formed by a line from meatus to middle of clavicle. It is beneath the sterno-mastoid, and is fairly moveable from side to side, Behind it is bossy, and in one spot it is soft and fluctuating. There is no dyspnœa or dysphagia, and the front part moves up on swallowing. The tumour was explored, and a cyst opened, when a quantity of yellow fluid escaped, containing white, flocculent masses. It was too firmly attached to the surrounding structures to permit excision, so the cavity was stuffed with gauze. The patient became delirious and very troublesome, and some four weeks after the operation he was removed from the Hospital. Unfortunately, no microscopic examination was made of this tumour, so that its exact nature cannot be stated.

Mr. Treves described some similar cases at the Pathological Society, in October. 1886. They were briefly as follows :—

3. M., 53, tumour of the neck of two months' duration, with distinct fluctuation. It was tapped, and three ounces of clear, yellow, mucoid fluid drawn off. Subsequently the tumour was incised and drained. Profuse suppuration and occasional hæmorrhage ensued, and the man died about seventeen weeks after the swelling was first noticed. The cyst was found *post-mortem* lying on left lobe of thyroid, but not connected with it. It invaded the surrounding structures, but there were no secondary deposits in glands or viscera. The wall consisted of alveoli, in the form of elongated cylinders, containing large, rounded, epithelial cells, The stroma was scanty.

4. F., 52, has a very large tumour in the neck, which has been noticed six months. In one spot the growth was fungating, and in another there was distinct deep fluctuation. Extirpation was attempted, but complete removal was impossible, owing to extensive adhesions, and the woman succumbed on the third day. No trace of right lobe of thyroid could be found. The growth was chiefly solid, but it contained one large cyst, which was filled with about two ounces of pale, yellow, mucoid fluid. Microscopically, the cyst wall was composed of elongated narrow cylinders, filled with large epithelial cells.

5. Mr. Symonds has recorded a case in Brit. Med. (Jan. 21, 1888), of which this is an abstract :

M., 56, admitted with a tumour in right side of neck, which extended from angle of jaw to middle of thyroid cartilage. It was fairly moveable, and gave an indistinct sense of fluctuation. The tumour was extirpated, thou h it was found closely adherent to surrounding structures. On section, it consisted of a large, thick-walled cyst, filled with sanious fluid, containing flakes of epithelial debris. The wall was five-eighths of an inch thick, white on section, and showed under the microscope a typical epitheliomatous structure. The growth recurred so rapidly, as to render all operation useless.

Besides the above, several cases of Cystic Epitheliomata of the Neck have been recorded. Most of these were secondary to Epithelioma of Tongue or Œsophagus ; but three cases described by Silcock (Path. Trans., vol. xxxviii.) seem to have been primary in origin.

With regard to the origin of these tumours several explanations have been given. They have been attributed to accessory thyroids, which have become the seat of malignant disease ; to cysts in connection with the lingual canal which represents the pharyngeal diverticulum, out of which the thyroid gland is developed ; to remains of the bronchial clefts ; or to the cervical lymphatic glands. The last mode is very difficult to conceive, and requires much more proof than has yet been offered. That they are in some way connected with the thyroid can be easily believed, both from their clinical and pathological character, and from what we know of thyroid tumours generally. For many of these are developed from outlying lobules rather than the lobes proper, such lobules being frequently found in dissections of normal thyroid. Dr. Farrant Fry has recently presented the Guy's Museum with an excellent specimen of Cystic Thyroid Tumour, which shows the development of intra-cystic growth most beautifully. Bland Sutton has also called attention to the similarity which these bear to malignant ovarian tumours. While not excluding such possible modes of origin as are given above, it seems a legitimate conclusion that many, if not most, of these cystic carcinomata of the neck arise in connection with lobules of the thyroid gland. It must, however, be borne in mind that all merely cystic changes in sarcomatous tumours, and all *secondary* cystic deposits, are not included in the above class of cases.

## METSCHNIKOFF'S PHAGOCYTE THEORY.

Metschnikoff has lately published his researches on the microbe of malaria and its behaviour towards phagocytes. He found in the red blood corpuscles of two sailors, who had died from malarial meningitis, spheric or sometimes irregularly-shaped amœboid bodies containing pigment (melanine) granules and of varying size. These amœboid bodies increasing in size in the red corpuscles suddenly break up into a number of daughter spheroids, giving rise for a time to the "daisy" stage, these daughter-amœbæ after a time leaving their birth place to enter other blood corpuscles. He thinks that in all probability spores are not formed in the body, but only after a prolonged sojourn in the soil. The most interesting point was the discovery of the destruction of these microbes by phagocytes. In the spleen a few microphagi (leucocytes) were found containing red blood corpuscles and melanine. But the

large cells of the splenic pulp, the macrophagi, were found in large numbers to contain not only red blood corpuscles undergoing dissolution, but the coccidia of more or less young evolutionary forms, and larger or smaller collections of melanine. Similar macrophagi were met with in the liver. In the case of the two sailors the microbes had the better of the struggle, but in another case which died of croupous pneumonia, the coccidia were found to have been destroyed, patches of pigment being alone found in the macrophagocytes. Metschnikoff believes that destruction of the microbe can take place only after it has entered a red corpuscle, the parasite in its free state having the power to resist the phagocyte. When, after the extensive multiplication of the microbe in the blood, the parasites give rise at last to a febrile state, phagocytes (the activity of which is favoured by a high temperature) commence to destroy the coccidia-stricken blood corpuscles on an enlarged scale, and thus bring about a temporary arrest of morbid phenomena. In course of time, those coccidia which, in a more or less small number, have managed to escape from, or even out of, phagocytes, begin again to multiply in the blood, enjoying the opportune moment when the activity of their foes is decreased (partly by return of the temperature to the normal, and partly by their being filled up with the coccidia of older generations). Thus a new febrile paroxysm is prepared.

With regard to the action of phagocytes in relapsing fever, Baumgarten has recently denied Metschnikoff's theory. According to Leinenberg, Metschnikoff claims a triumph for his theory. Apes were chosen for the experiment. The first infected ape was killed early, and spirilla was found in the blood, but none in the spleen. A second was killed at the height of the disease; in this case spirilla were found in the spleen (though not so numerous there as in the blood), a few being enclosed within leucocytes. Preparations from an ape killed in the pre-critical stage, showed that the spirilla had disappeared from the blood, and were all located in the spleen, partly free, partly enclosed by leucocytes. In an ape killed after the crisis, spirilla were absent from the blood, but present in moderate numbers in the spleen, enclosed in leucocytes.—*Lond. Med. Rec.*

# Sport.

## RUGBY FOOTBALL.

INTER-HOSPITAL CUP TIES.—First round:—

Mary's, w.o., Westminster, scratched.

Middlesex, w.o., King's, scratched.

George's beat Charing Cross by 76 points to 11.

Thomas' beat Guy's by 27 points to 10.

London *v.* Barts. (not yet played).

University, a bye.

GUY'S *v.* THOMAS'.—Played at Richmond on Friday, January 27th. The ground was in good condition, but there was a strong wind blowing down the ground, which our opponents, having won the toss, took advantage of. Fripp accordingly kicked off. The ball was well followed up, and the first scrimmage formed in St. Thomas' territory. Their forwards, however, gradually worked the ball down into our 25, where it remained for the greater part of the first half. Numerous short runs were continually made by our backs, more particularly Jordan and Bryant, which took the ball to the middle of the ground, only, however, to be brought back again almost directly by the St. Thomas' forwards, who were materially aided by the wind and hill. At one time we were closely pressed, but our defence was too good for our opponents to score. This was the state of the game until half-time. Our team had played well together, and despite the wind and hill had frustrated all St. Thomas' attempts to score. We were obliged to touch down once in self defence.

Ends having been changed we expected to see our men loosen the scrimmage and give our outsides, who were vastly superior to their opponents, a chance. But their forwards were too good for us, they knew their game was to keep it tight, and they did it, despite all our forwards' attempts to loosen it. They again carted us into our 25, and Gedge dropped a very neat goal against the wind.

On resuming, we, for the first time, assumed the aggressive. Jordan, having the ball well passed to him by Bryant, made a splendid run down the ground, and was only stopped by Stabb, who, unfortunately, got badly hurt and was carried off the field insensible. His place at back was filled by one of the three-quarters, Dewhurst coming out of the scrimmage to play three-quarter. For a little while we pressed our opponents, but they soon transferred the ball to our 25, a run by Pitts Tucker being mainly responsible for this, and we had to touch down.

The game now became a little looser and the superiority of our backs at once made itself evident. Jordan got the ball from a throw-in, and after a good run passed to Mitchell who fumbled the ball and missed a certain try. Things were now looking very dark for Guy's, and it was not till we had almost ceased to hope that Evans from a pass by Jordan (who was crippled by the rupture of some muscle in his thigh) scored a try after a brilliant run down the touch line. Mitchell made a very good try but could not quite land a goal.

Our men made strenuous but unsuccessful efforts to score during the 4 minutes that remained, and so Thomas' retired victorious by 1 goal and 2 touch-downs to 1 try.

So ends the history of another attempt to win the Cup. This time we were far stronger than our opponents behind the scrimmage, where all played well; but forward they were both too heavy and too good for us.

The teams were:—Guy's—S. S. Wallis (back); H. M. Jordan, H. L. Evans, and W. G. Mitchell (three-quarter backs); H J. Bryant, and H. G. Steele (half-backs); A. D. Fripp (captain), A. Allport, F. G. Swayne, J. Fawcett, H. B. Rygate, W. G. Rogers, W. Bligh, W. Wilks, N. Instone (forwards).

St. Thomas'—F. A. Stabb (back); P. M. Toller, E. W. Senior, A. S. Gedge (three-quarter backs), R. Hattherill, and R. Northcott (half-backs); J. H. Dewhurst, T. R. M. Forde (captain), F. Pitts-Tucker, G. R. Stilwell, H. J. Cooper, C. C. Moxon, W. Wilton, J. R. Harper, T. W. Lambert (forwards).

Umpires: Messrs. J. C. Clibborn and W. K. Arber. Referee: Mr. E. Rowland Hill.

Guy's Hospital Gazette,

*FEBRUARY 18, 1888.*

## CARCINOMA OF THE ŒSOPHAGUS.

A PAPER READ BEFORE THE PHYSICAL SOCIETY, ON THURSDAY, JANUARY 5TH.

*(Concluded.)*

This brings us to consider the nature of the stricture.

My impression is that the chief obstruction is either the mass of the cancer filling up more or less of the lumen of the tube, or else the thickened everted edges of the subsequent ulcerating surface doing the same thing. To this may be added thickening of the mucous membrane by the cancer in an early stage, and inflammatory hypertrophy in the neighbourhood of the growth. Another factor may be œsophagismus caused by the contact of hard substances with a hypersensitive surface; and the point suggests itself when the walls are extensively infiltrated with cancer and before any marked projection of the growth has taken place. In this state of the tube the interstitial nerve plexuses may be seriously damaged, and the function of the gullet interfered with. But this is very theoretical.

If a portion of a projecting mass become broken off by efforts of swallowing, &c., it will seem as if natural dilatation had taken place, and when the fungating mass again obliterates the channel, as if constriction had once more recurred; so, if a portion be dislodged by the passage of a bougie, dilatation would seem to have been effected. Patients often state that they feel something give way, after which swallowing is easy for a time. (38) "Throat stopped up last night; broke this morning."

When ulceration of the growth has taken place, it may be readily recognised by fœtor of the breath, and if a bougie be passed it will have an evil odour on withdrawal. The viscid saliva—or so-called sputum—or the regurgitated food—may now be streaked with blood; or bright blood may be gulped up (the patient will call it vomiting) in small or even great quantity, or it may find its exit along the bowels.

Let me read a few extracts from reports.

"For six weeks has vomited blood with food."

"The sputum is vomited up, not coughed up from the trachea; breath offensive."

"Food did not seem to reach the stomach; blood is vomited the last two weeks; losing flesh rapidly."

"Two months ago pain in back and pit of stomach—treated for chronic asthma; 11 days ago vomited Oj. of blood, dark and clotted." Cancer was at cardia.

"Mar. 15th.—Admitted for total dysphagia for both solids and liquids. 15th.—Felt something give way; able to swallow liquids easily. 20th.—Trouble returning."

"Food comes back with slime and bad smell."

"A week ago blood in the vomit."

"Dec. 2nd.—Last week could scarcely get any liquids down. 8th.—Difficulty in swallowing has quite disappeared. 12th.—Ate his chop. 13th.—Ate his chop. 12th.—Couldn't eat his chop. 16th.—Can take nothing but liquids." Growth just above bifurcation.

"One week ago four hours' continuous retching, and threw up 4 oz. of bright red blood, &c."

This dysphagia, with or without fœtor of breath, may be unaccompanied by any other symptoms, but sooner or later complications arise.

Before going on to this part of the subject we will complete the diagnosis.

Having come to the conclusion that our patient is suffering from cancer of the œsophagus, the next point is to determine its whereabouts. The pain will often give some information, that caused by efforts to swallow being sometimes localised with tolerable exactness. In cases of cancer at the cricoid, the patient will point to his throat; at or about the bifurcation, to the upper part of the sternum or the "second shirt button": at the lower end of the œsophagus, to the epigastrum or lower end of the sternum. But the ulcerating surface may extend beyond these parts. When complications have arisen their nature may help to show the site, but the chief aid to the diagnosis is the bougie. This should be soft and at first of full size, and the difficulty in getting the instrument past the cricoid the first time of using it must not lead the inexperienced operator to infer that there is an unnatural obstruction there. In one case a "catheter doubled up at the cricoid," but after death the disease was found to be at the bifurcation.

Having found an obstruction, measured its distance from the teeth, and deducted 6½in., what then? Why then we have found its site, of course. The site of what? The site of the cancer—the obstruction. Aye—the position of the stricture—stenosis—obstruction, if you please; but how to tell the extent of the ulceration, I do not know—the tale told by the bougie must not be taken for more than its worth.

"Obstruction 12in. down the œsophagus." *P.-M.*—Growth from cricoid to 1in. from cardia.

"Surgeon passed bougie 'at least near to cardia' without obstruction. Physician found obstruction with a large bougie 11in. from the lips." (4½in down œsophagus.) *P.-M.*—Growth at bifurcation.

"Bougie stuck at cardia." *P.-M.*—Growth extended upwards for 3in.

"Bougie arrested 11in. from lips" (4½in. down). *P.-M.*—Cancer at bifurcation and another 3in. from cardia.

"Bougie passes 8in." *P.-M.*—3–4in. above cardia.

"Bougie arrested at upper part of gullet. A week later opposite the 4–5 D. V." *P.-M.*—Growth half way down.

"Bougie 12in. from lips" (5½in. down). *P.-M.*—Growth from bifurcation to within 1in. of cardia.

"Bougie passed without difficulty." *P.-M.*—Growth from cricoid to bifurcation.

"Bougie stopped 12in. from teeth" (5½in. down). *P.-M.*—Growth 1in. below cricoid, spreading for 1in., then a gap of 2in. and cancer again.

"Bougie 12in. from teeth." Growth from bifurcation to 1in. from cardia.

And so on.

So that we learn:—First—That a small bougie may fail to give, while a large one may afford, the evidence we seek. Second—That the obstruction may be at the upper or lower part of an ulcerating surface. Third—That skill and experience is necessary in even this simple operation, and that we shall do well to reserve our judgment until we obtain the same results with two or three trials.

If an obstruction be found at the bifurcation and the patient complains of pain in the epigastrium, with fœtor of breath, I should be inclined to diagnose an ulcerating surface extending downwards from the first spot.

The passage of the bougie often displaces a quantity of frothy viscid saliva.

Another aid is auscultation. The patient tries to drink some water while the surgeon listens along the spine from the 6th cervical to the 10th or 11th dorsal vertebræ, and the noise of the liquid may be heard as it passes the stricture.

Now for the complications—they are numerous and horrible.

Voice affected.
Larynx, trachea, or bronchi perforated.
Lung invaded.
Hæmorrhage.
Bronchi involved in the growth, lumen nearly obliterated but no perforation.
Diarrhœa.
Thrombosis.
Ascites.
Œsophagus adherent to other structures.
Secondary deposits in the viscera.
Invasion of the pericardium.
Foreign matter in lung without invasion of the growth.
Nerves implicated.
Lardaceous disease.
Perforation of the pleural cavity.
Invasion of the aorta.
Abscess behind œsophagus in either neck or thorax.
Secondary deposits in the lungs.
Direct extension of the growth.
Secondary affection of lymphatic glands.

If I venture to present any figures to your notice, you will remember to receive them here, as before, with caution.

The voice was affected in 16 cases; 10 of these were cricoid sites, and 6 involved the bifurcation. In one of these 16, the voice was affected as soon as dysphagia commenced, and from the few reports that give scientific facts, and not mere general information, it seems that the voice is altered in from a week or two to eleven months after the onset of dysphagia. Some of the times are about, at the onset, 3 weeks, 1 month, 6 weeks, 2 months, 3 months, 4 months, 6 months, 9 months and 11 months after. The voice is either a hoarse whisper or a piping falsetto. In one case the cords were paralysed, and here the nerves on each side of the gullet were involved in the growth, as they were also in three other cases, *i.e.*, recurrent, vagi, and phrenic, and in all these cases the crico-arytenoidei postici were pale, fatty and wasted.

The air tube was perforated in 28 cases, and involved, but not perforated, in 10. In those perforated, the growth was about the cricoid in 7, about the bifurcation in 17, and between these two places in 3. In one the site is not stated. In 6 of these the ulceration had eaten directly into the lung as well.

The period between the onset of dysphagia and perforation seems to vary from 2 weeks to 14 months, though from 2 to 6 months is the most frequent period. Death follows this complication in 1 week, 2 weeks, 1, 2, or even 3 months. The result of perforation is bronchopneumonia caused by food passing into the lung, and this may go on to hepatisation and gangrene.

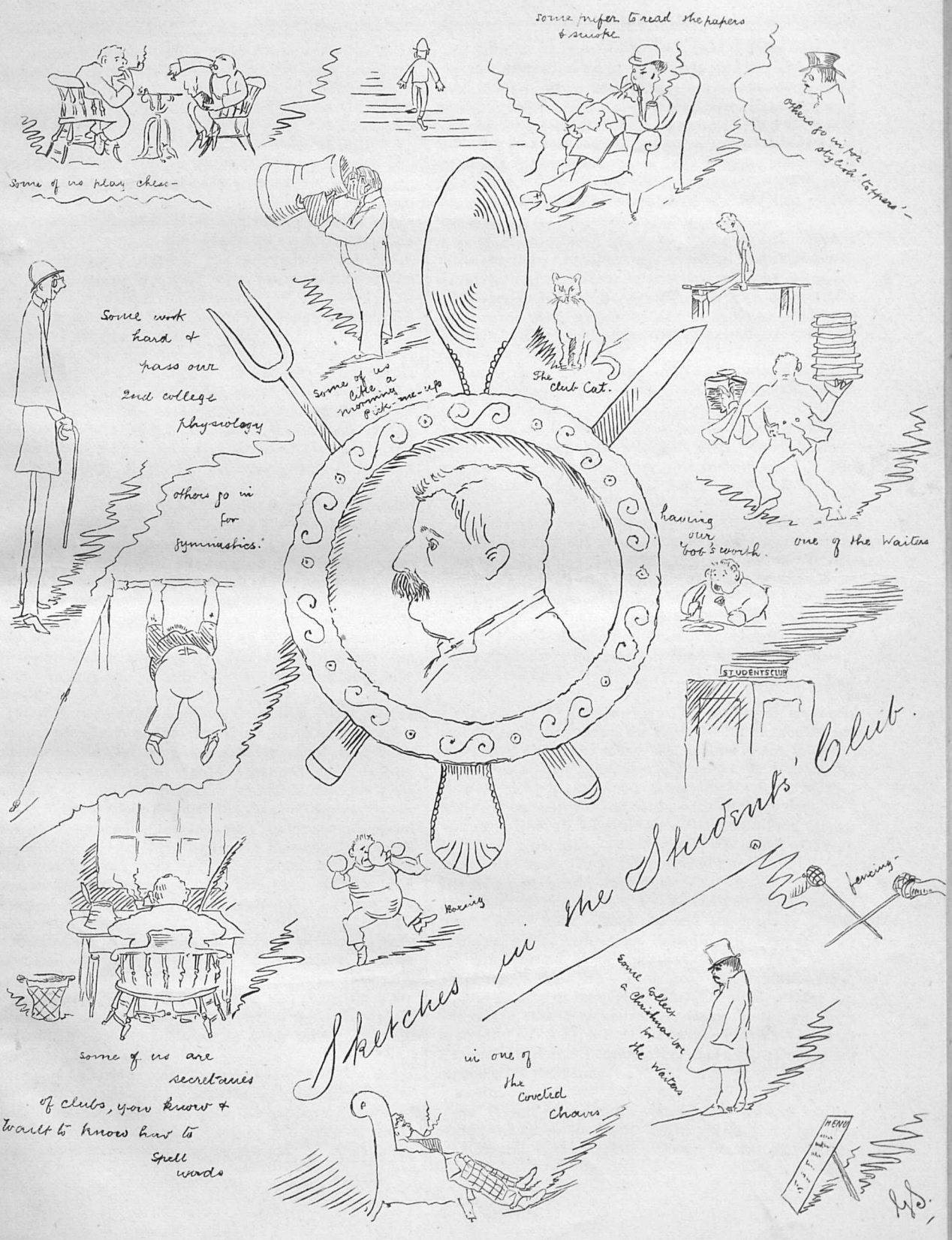
These conditions of the lung may be accompanied by pleurisy or empyæma, or this may be set up by the cancer directly invading the cavity of the pleura, or by secondary deposits taking place upon that membrane. The fluid has been found mixed with blood. The empyæma may be circumscribed or general; in one case the cavity was distended with pus reaching almost to the apex.

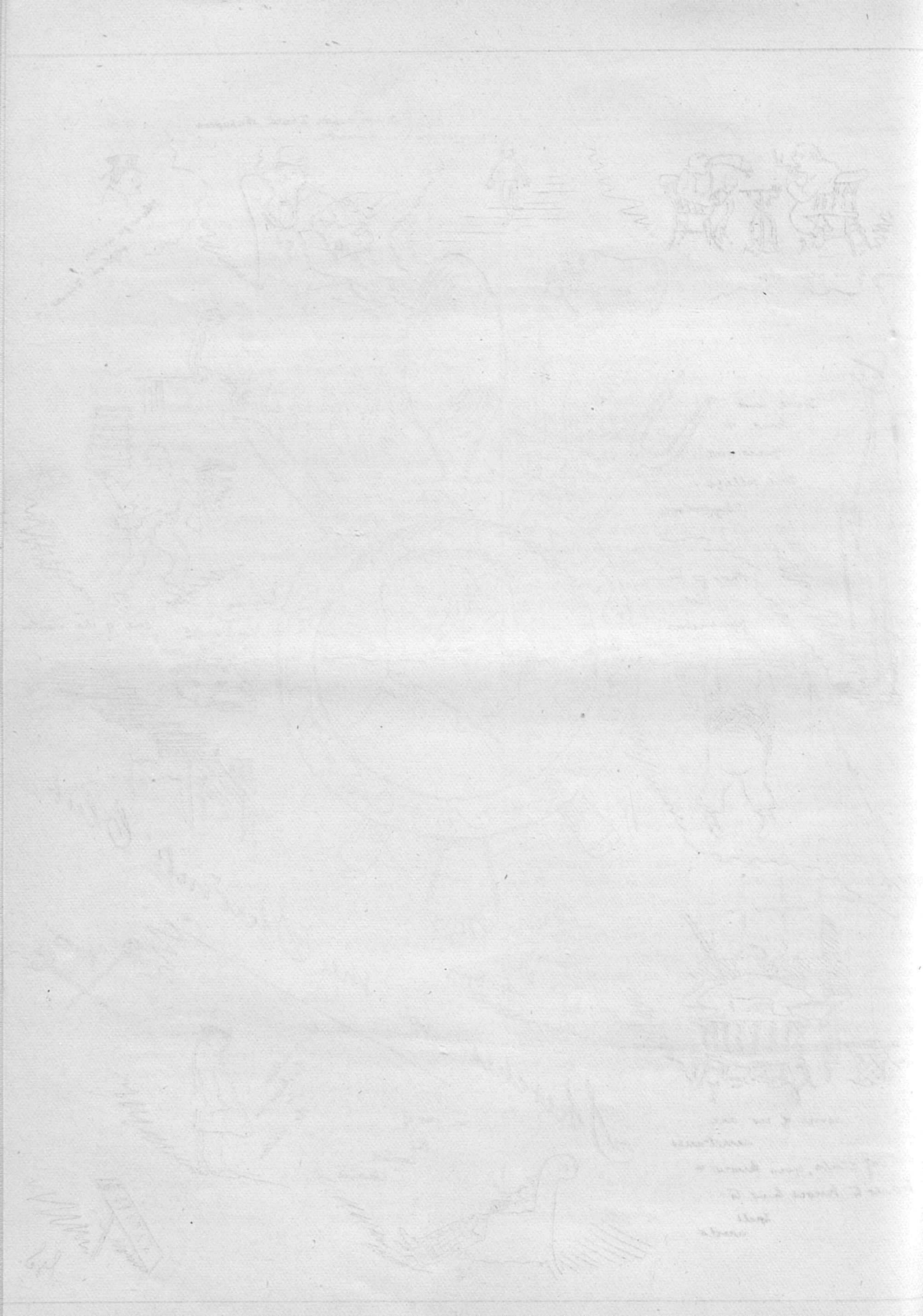
Abscess may form behind the growth and spread into surrounding structures in either the neck or thorax.

The lung may be the seat of secondary growths which may break down into purulent or gangrenous cavities, and thus cough with foul expectoration will occur without perforation of trachea, or direct invasion of the lung.

The trachea and bronchi are sometimes found to be seriously infiltrated and involved in the growth without perforation having occurred. In one case, the trachea was extensively infiltrated and stenosed for the upper four rings. In another, the mucous membrane was loose and suppurating, and presented the appearance of being affected through the introduction of foreign matter primarily. In another, the growth had ulcerated into the root of the lung, opening up a branch of the right bronchus. In five cases the left bronchus was so affected by pressure and extension of the growth as almost or quite to obliterate the lumen.

Dilatation of the œsophagus above the growth was mentioned in three reports. The œsophagus has been noticed to be adherent to aorta, right lung, surrounding structures, and "by a quantity of dense cartilaginous tissue to the 2nd and 3rd dorsal vertebræ." Exostoses from the vertebræ have been seen corresponding in position with the cancer.


Sketches in the Students' Club.
some prefer to read the papers & smoke
Others go in for stylish 'toppers'
Some of us play chess
Some work hard & pass our 2nd college physiology
Some of us like a morning pick-me-up
The Club Cat.
others go in for gymnastics.
having our Bob's worth.
one of the Waiters
STUDENTS CLUB
Boxing
fencing
Some collect a Christmas-box for the Waiters
in one of the coveted chairs
some of us are secretaries of clubs, you know & wait to know how to spell words
MENU



Hæmorrhage has been a conspicuous symptom in 11 cases. In another there was profuse and prolonged epistaxis immediately before the onset of dysphagia. In another violent hæmorrhage lasted for nearly an hour from a carcinomatous gland in the neck. Besides these there was evidence during life of ulceration of the growth in 15 cases, as betrayed by most offensive breath, and some of these brought up small quantities of blood.

The aorta was affected in 4 cases, in 2 of which perforation had taken place, and in 1 of these a fringe of the growth hung in the vessel. In another, dilatation had taken place where it was adherent to the gullet. In two instances the walls were atheromatous at the seat of the growth.

In one case calcareous plates were found between the dura and pia mater of the growth.

Diarrhœa was reported in 7 and clot in the vessels in 2. In one, a large clot was found in the pulmonary artery, and in the other in the iliac veins. In one case the small intestines contained numerous small ulcers throughout their whole length, and more particularly in the lower part. In one case the valves of the heart were thickened and supported vegetation, and lardaceous diseases was present in another.

The pericardium was noticed to be covered with secondary growth, to be ulcerated not perforated; and again, to be sloughed through.

Secondary deposits in the glands is of frequent occurence. Occasionally they were seen to be breaking down. We have mentioned hæmorrhage in one case.

One man had epithelioma on the arm (modelled by Mr. Towne) with ununited fracture of the humerus and stricture of the œsophagus. The cancer was removed from the arm, and while in Hospital he could only take liquids.

Secondary deposits have been found in the liver, spleen, mesenteric glands peritoneum about the bladder, suprarenal capsule; tail of pancreas, kidneys, thyroid, both sides of the diaphragm; "head of pancreas and tube duct a mass of cancer," posterior aspect of stomach near pylorus, "cancellous tissue of the vertebræ especially 3 L, 8 and 11 D with adherent pia mater," in the meninges and septa of lung. In three cases the kidneys were small and granular and contained cysts. In one case the liver was studded throughout with cancerous nodules and weighed 272 ozs. There was considerable effusion into the peritoneum.

Treatment.—The occasional passage of bougies may afford much relief for a time, but it sooner or later becomes a matter of extreme difficulty to pass one. Sometimes it is impossible to do so and then when the patient is in a condition of exhaustion from starvation, gastrostomy is performed and he never rallies from the shock of the operation.

Decide upon your plan of treatment and if you mean to perform gastrostomy do not wait for impending dissolution. Another plan is to pass the œsophageal tube of Mr. Symonds through the stricture and leave it there, changing it every few weeks for the sake of cleanliness. The patient as a rule soon gets used to its presence, is enabled to swallow very comfortably and the passage of food into the lungs through any perforation is guarded against. Silk is attached to the tube and fastened round the ears to prevent its being swallowed. The tube also affords a ready passage to the saliva and thus relieves a great annoyance which alone may exhaust the patient by preventing more than short snatches of sleep, and altogether by this simple operation you at once relieve the poor sufferer of a whole load of misery.

If it be impossible to pass a bougie or tube, then a catheter must be tried or nutrient enemata given. Persevere in your efforts to pass the tube, for although these may be fruitless for several days yet it may happen that when most despairing the instrument may pop through. If signs of extensive ulceration are present, caution is necessary.

Two or three more points, and I have done.

The wasting is often so extreme, that the abdominal aorta may be felt.

Patients are frequently more troubled with cough and saliva when lying on their backs. Why I do not know.

When lung trouble occurs, the patient will tell you that he has caught cold and has a cough. Do not be deceived.

Dysphagia is very occasionally absent. Thus:—"Two months ago felt out of sorts; very weak; feet swollen. Admitted Jan. 5. Jan. 15—Tickling in throat and cough; frothy mucus. Jan. 28.—Absolute dulness of left base. Paracentesis thoracis gave 52oz. of fluid, with much pus. Jan. 30.—Tapped again, 24oz. Jan. 31.—Died. *P.-M.*—Malignant disease of œsophagus, from 1in. below the bifurcation nearly to the stomach, and spreading into the lungs, &c."

Again.

"E. R., æt. 52, admitted Nov. 7, for pains in the back, and shooting pains down the right leg. Two months ago was seized with pain along the hepatic region in front; pain went to the opposite side, then to pit of stomach, then to right buttock and along the thigh. Nov. 7.—Shooting pains in the leg cause patient to cry out. Inj. morph. Nov. 10.—Delirious. Nov. 20.—Pain across abdomen. Nov. 27th.—Stood up and was seized with pain in small of back. In 15 minutes could not move his legs. Retention of urine; incontinence of fæces. Loss of sensation in legs. Dec. 1.—Fæces and urine passed involuntarily now. Does not feel the passage of the catheter. Dec. 2nd.—Lost control of ms. supplied by the lumbar and sacral plexuses. Speaks of a fall 25 years ago. Dec. 5th.—Diarrhœa. Dec. 13th.—Died. *P.-M.*—Cancer of œsophagus at bifurcation of trachea. Secondary cancer of cancellous tissue of the vertebræ especially 3 L & 11 & 8 D. Pressure on spinal cord at 8 D, pia adherent. Thrombosis of iliac vein. Pulmonary embolism of right lung."

Again.

"J. S., æt. 63, admitted June 1, for pain in lumbar region and across the back. Eight years ago fell out of a window and injured spine. Cough for last 15 months;

phlegm in the morning; pain in left side above the hip. Monday before Christmas brought up a large quantity of dark blood. Gums shrunken from the teeth, leaving the fangs exposed; distinct blue line near the edge. June 24th.—Pain shifts about a good deal. June 28th.—Died in great agony. *P.-M.*—Sanious fluid in right pleura. Thick-edged growth in œsophagus, at the bifurcation, extending into right lung, the middle lobe of which was cancerous. Secondary growths in liver, on under surface of diaphragm, in the meninges, and in the bodies of vertebræ."

In conclusion, I have to thank Mr. Symonds for much valuable information, the Curator and Medical and Surgical Registrars for allowing me the use of the reports, and I beg especially to acknowledge my obligation to Dr. Shaw for having permitted me the use of his room at any hour of the twenty-four—a favour that has greatly facilitated the performance of this task.

## NOTES ON THE USE OF ANTIFEBRIN.

Acetanilide, perhaps more commonly known as antifebrin, dissolves very easily in rectified spirit. A solution consisting of 5 grains of the drug in one drachm of spirit may be kept, and water may be added in the proportion of an ounce to a drachm of the solution for the purposes of administration. In the cases in which the following notes were taken the dose varied from 1 to 10 grains, according to the age of the patient; the most common dose being 2½ grains for a child and 5 for an adult. The observations were made chiefly with a view to ascertaining the effect of the drug on the temperature. In all there were 27 cases, of which 18 were scarlatina, 5 enteric fever, 2 erysipelas, 1 pneumonia, and 1 empyema.

To take the scarlet fever cases first: 7 were males from 5 to 23 years of age; 11 were females from 2 to 26; 5 of the latter were fatal cases. After a dose of antifebrin has been given the temperature is taken one hour afterwards, and again one hour later; after that every two hours, unless anything in the condition of the patient has pointed to a rise of temperature at any intermediate time. The number of doses given to any one patient has varied from 1 to 13, the average being 5. In the case of each of these 90 doses, the time at which each dose has been given has been noted, and also the time at which the temperature was at its lowest point after that dose, no rise having taken place meanwhile. I find this period of time to be on an average 3⅙ hours; that is to say, the temperature after a little more than 3 hours has begun to go up again; the extremes are 1 and 12 hours. The number of degrees through which the temperature has fallen in this period is on the average 2·5°, the extremes being 6·8° and—0·6°. Regarding this negative fraction of a degree I shall say a few words later on. In 37 instances the temperature came down 2° to 3° inclusive; in 27 the temperature fell more than 3°, and in 22 less than 3°; in 4 instances no reduction (without an intermediate rise) took place. When I say that after rather more than three hours the temperature began to go up, I should add that in most instances the rise continued without another fall until the temperature was again high enough to give another dose of antifebrin (103° and upwards in all but a very few instances). This was in the febrile stage of scarlatina (2nd to 5th day); after that it is more common for the temperature, having been reduced by a dose of antifebrin, to rise and then fall a little, and then rise again. The shortest time in which a dose of antifebrin has been repeated is 2 hours; the longest (during the acute stage of scarlet fever) 46½ hours; the average time being about 9½ hours; but the periods as seen in writing them down in a tabular form are so various, that not much value can be attached to such an average. Actually I find that I have had to repeat the dose most often in 8 hours. In four instances no reduction of temperature took place; on one occasion 5 grains of antifebrin were given, the temperature being 103°; one hour afterwards the temperature was 103·2°, in another hour 103°, and in another two hours 100·8°; so that ultimately there was a fall. The other three instances all occurred in the same patient, a little girl aged 4 years; 2½ grains of antifebrin were given when the temperature was 103·8°; one hour afterwards the temperature had risen to 104·2°, and the patient was sponged with water at 70° (it was in the summer time); in an hour the temperature was down to 101·4°. It rose again in four hours' time to 104°, and another 2½ grains of antifebrin were given. In two hours the temperature was 102·4°; but in two hours more it was again up to 104°. Again a dose of 2½ grains was administered; and in another hour the temperature was 104·6°. However nothing further was then done, and the temperature fell during the next hour to 102·4°, only to rise in another two hours to 104·2°. Two-and-a-half grains of antifebrin were then given, the temperature gradually went down to 102·8° in three hours; but during the next hour the temperature went up to 104·8°. Another 2½ grains were given, but this only reduced the temperature 0·2° in three hours. This was the third day on which the temperature had been high; and as previously sponging with water at 70° had had more effect than antifebrin, it was ordered again; the result was greater and more rapid than was either anticipated or desirable; for the temperature was reduced in fifteen minutes from 104·6° to 98°, and the patient became collapsed, the extremities becoming so blue and cold that hot bottles had to be applied. At the end of another three quarters of an hour however the temperature was again 103·2°. The case terminated fatally three days later; and I believe the result was due chiefly to exhaustion produced by the continued pyrexia. An autopsy at any rate disclosed no other cause. In 4 cases I have found that an increase in the dose of antifebrin has had apparently the desired effect of reducing the temperature when previous smaller doses have failed. No very appreciable effect is produced on the pulse by this drug either in alteration of frequency

or tension. Nor in scarlet fever does it produce perspiration. I have only noticed perspiration in two or three cases, and in those only slight. One effect, however, I have frequently noticed, namely, a narcotic one. Whether this result is due to the antifebrin or to the fall of temperature may be doubtful; but certainly patients with high temperature, accompanied by restlessness and delirium, will often fall asleep for two or three hours after the administration of the drug. I have seen no bad effects result from the use of antifebrin, such as collapse or failure of the heart or respiration; nor have I known it to cause vomiting. Patients not unfrequently suffer from troublesome vomiting in scarlatina, but quite independently of any medicine they may have given to them.

Turning now to the cases of enteric fever: there were 3 males and 2 females from 12 to 32 years of age. These patients had between them 48 doses of antifebrin of from 2½ to 5 grains, with the result that in an average period of 2¾ hours (extremes 2 and 8 hours), the temperature was reduced on an average 4·4° (extremes 8·2° and 2°). In 9 instances the temperature was reduced by 4° to 5° inclusive; in 22 instances the temperature fell more than 5°, and in 17 less than 4°. The intervals between the times of administering successive doses were longer than in the case of scarlet fever; that is to say, the temperature in enteric fever not only comes down more quickly, and through a greater number of degrees than in scarlet fever, but it also remains down for a greater length of time. In these cases antifebrin produced perspiration, which was sometimes profuse. The pulse was not definitely affected.

Two cases of erysipelas are not enough from which to draw conclusions of much value; but I give them because each patient had a good many doses. They were both females, and between them had 38 doses of 5 grains each. In an average period of 3½ hours (1 to 16 being the limits) the temperature was reduced 3·8° (0·2° and 6·6° being the extremes). In 8 instances the amount of reduction was from 3·6° to 4·6°; in 13 instances the temperature fell more than 4·6°, and in 17 less than 3·6°. In one of the cases profuse, in the other slight, perspiration was produced. In one patient the erysipelas came on in the stump after amputation through the thigh, in the other it was of the facial form.

In a case of pneumonia and pleurisy 6 doses of 2½ grains were given, with the result of bringing down the temperature 2·8° in two hours on an average. In another case of pleurisy with effusion which became purulent, 15 doses of 2½ or 5 grains each were given, and in 4 hours (extremes 1 to 8 hours) the temperature was reduced 5·2° (extremes 2° to 8°); there was free sweating, but I did not know whether to attribute this to the antifebrin or not.

In the great majority of instances, therefore, in which antifebrin has been prescribed for the purpose of reducing temperature, it has apparently been more or less successful. As far as my experience goes in scarlet fever, it is more successful as an antipyretic than the application of water either by sponging, baths, or the wet pack. For though these methods of treatment are of great value in rendering the skin moist and less pungently hot, yet their effect does not last so long, and the patients often complain of them, especially children. There is very little difference in the times during which the temperature falls after the administration of antifebrin in the different febrile conditions in which I have used it, but there is more difference in the number of degrees of reduction. The least amount is in scarlet fever, the greatest in typhoid; while as regards time the slight difference that exists is in point of shortness in favour of typhoid. This is in agreement with the nature of the temperature in the two fevers, the temperature being very labile in enterica and just the opposite in scarlatina.

Antifebrin is therefore a drug of some value as an antipyretic. But like most drugs it sometimes fails in cases where its action would be most desirable. It may with advantage be combined with the use of baths and sponging, especially in scarlet fever, when other conditions besides pyrexia call for treatment. I have not yet had any opportunities of giving it in cases, such as occur in acute rheumatism, of hyperpyrexia threatening to be speedily fatal; nor am I aware of any published account of its trial under such conditions. I have occasionally repeated a dose of antifebrin at a time when the temperature has been presumably reduced by a previous dose, with a view of preventing another rise of temperature; but I have not thus used it in a sufficient number of cases to draw any trustworthy conclusions.

If any one should ask "after all do patients derive much benefit from taking antifebrin"? I should answer "yes"; because, firstly, the temperature is reduced; and even though the reduction is small, yet in such a disease as scarlet fever this is a gain; secondly, the drug has an appreciable narcotic effect; and, thirdly, I believe that an increased dose has sometimes produced a termination of the fever (in scarlatina) by crisis; but to be certain of this more cases are required.

At the beginning of the febrile stage of scarlet fever, the ease or difficulty with which the temperature falls under its action may be said roughly to be an index of the severity of the case in regard to pyrexia. In only one of the five fatal cases could the result be at all ascribed directly to the high temperature, which, though never more than 105°, was long continued and obstinate to reduce. Never having given more than 5 grains to a child and 10 to an adult, I have never seen any bad effects. In typhoid fever it is not necessary to give so much even to an adult. In this point antifebrin has, perhaps, an advantage over antipyrin; and it is moreover much cheaper than the latter medicine.

[The cases in which the above observations were made were under the care of Dr. Barlow, at the London Fever Hospital, and I must thank him for allowing me to use them.]

E. W. GOODALL, M.D.

## QUERY.

A girl, æt. 19, was brought up in a cab on Sunday afternoon, 29th inst. The medical man said he could do nothing further for her. She was very noisy, and apparently hysterical, kicking open the cab door, and flinging her arms about. Now and again she put her hand to her head, and complained of pain there. Her sister gave a history of discharge from one ear, and this, together with a thickly-furred tongue, sordes on lips, pulse of 54, temperature of 100·2°, and the aspect of illness, was considered a sufficient indication for her admission.

*History.*—Said to have had "gastric" fever when a child, and variola when 13. Discharge from left ear as long as can be remembered; frequently suffers from ear-ache. Fairly well a fortnight ago. Symptoms during past fourteen days—ear-ache, with discharge from ear; nausea and vomiting (once); four fits last Wednesday (doctor thought them hysterical); intolerance of sound, but not of light; rambling at night; occasionally passed urine beneath her. Has complained of "swimming" sensations in the head. No rigors; no rigidity or weakness of limbs; occasional twitching of face.

*On Admission.*—Heart sounds, normal; pulse, 52, regular.

Lungs apparently healthy. She occasionally breathes rapidly for a time, and then a normal rhythm is regained.

She is in a restless state; movements affect the whole body. Cries out at intervals, and complains of pain in left ear and forehead (slight discharge from ear). Lies with eyes closed; body slightly curled up. Answers questions with reluctance. Facial twitching and general movements increase when anyone approaches. When spoken to firmly, usually obeys.

Eyes, normal. No evident swelling over mastoid process.

She was given Pulv. Salium, ʒv. (which did not operate), and the ear was syringed with Boracic Lotion. Her condition remained the same until the afternoon of the day following admission, when she died quite quietly and suddenly.

Many of her symptoms were such as are commonly met with in neurotic girls; but it was fairly evident that such an explanation would not meet all the facts of the case. When first seen in the cab she appeared markedly hysterical; but with a history of discharge from the ear one could not fail to be on the alert. Such a sudden termination, however, was unexpected. A diagnosis was not made between Cerebral Abscess, Meningitis, and Thrombosis of the left Lateral Sinus, which were considered as probabilities.

*Autopsy.*—Dry caseous material in left middle ear; thickening of the bones with discoloration. Dura mater unaffected, except locally, where it was thickened, with a sloughing piece of pia-arachnoid and cerebral tissue adherent, and stained green. Abscess in middle, and inferior tempero-sphenoidal convolutions, its opening sealed by lymph, and fixed to the dura mater. Definite wall of pyogenic membrane. Red softening around for some distance.

Bases of lungs congested; kidneys congested, with some petechiæ on surface of pelvis. Viscera otherwise normal; body well nourished.

E. G.

## LONDON UNIVERSITY.

### INTERMEDIATE EXAMINATION IN MEDICINE.

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J. McD. Gill.

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C. J. Girling.

T. F. Ricketts, B.Sc.

# Passim.

A Correspondent sends us the following:—"It was my fortunate lot to be present at a select farewell dinner given to Dr. Albert Martin at the Evelina Hospital on Monday, January 31st, at which were present—Messrs. Lingard, Meares, Poolman, W. Bedford Glazier, a legal luminary, Arthur Taylor, Randell, and our host, Mr. E. A. Carpenter. As may be conjectured, our evening was a pleasant one, albeit tinctured with sadness, as we thought that we were bidding good-bye to our dear old pal. Unfortunately there was no shorthand writer present, so I have been unable to preserve any account of Albert Martin's speech. Some of us were not contented with this farewell, but saw him safely on board S.S. "Carthage" on February 9th."

One of the chief objects of this Journal of ours is, that of recording any important event in the career of those Guy's men who have made themselves dear to their colleagues and associates, and have done their share towards maintaining the traditional reputation of our beloved Alma Mater. Such a man in every respect we possessed, nay, we still possess, in Dr. Albert Martin, whose popularity throughout his career here was deservedly great, and who will always be remembered with affection by those who were privileged to know him. Dr. Martin embarked for Australia on the ninth of this month at Tilbury, to which place he had been escorted by a few of the most intimate of those numerous friends whom he leaves behind him in the Old World. The record of his past triumphs will show how amply justified are his well-wishers in anticipating for him a future of prosperity in whatever sphere of action he may ultimately adopt. Need we add further, that he bears with him across the seas the hearty goodwill, and, moreover, the unfeigned regret, of all who ever knew him. We are proud to think that the credit of Guy's in the New World rests with such men as this.

We draw our reader's attention to the Charles Murchison Scholarship, thinking that, perhaps, many of them who are both willing and able to compete, have not yet seen any notice of the Examination, or, having seen it, have, perchance, forgotten it. This, which is of the value of Twenty Guineas, is open to Students of not less than four and not more than six years' standing. It is held at the College of Physicians on April 16th, 1888, and following days. The subject of the examination is Clinical Medicine. Let Guy's men look to their laurels.

It is not often that we have to give such advice, but at the present moment it seems somewhat necessary. At the recent London Examinations for the Prel. Sci. (M.B.), and the First M.B., we are far below our usual form. For out of nine men up for the Prel. Sci., but two have passed, and one of them in two subjects of the examination only; whilst at the First M.B., four out of eight have got through, two of them being second class. We do not know the reason of this poor display, but hope it will be remedied on the first opportunity.

We are very glad to see that so many old Guy's men have been supporting the Club. This is as it should be. It was with great pleasure that we noticed a day or two ago that Mr. Lund had been kindly sending copies of the "Medical Chronicle" to the Club Reading Room. We have already mentioned this periodical in our columns, but we may be excused for again drawing attention to the excellence, not only of the original articles, but of the summary of English and Foreign work that it contains.

Subscriptions towards the purchase of the Cricket Cup are not as numerous as they should be. We further regret to hear that but one old Guy's man has, so far, contributed to the fund.

## A FEW WORDS CONCERNING THE SUN.

(A Paper read before the Physical Society).

The subject which I have to prove to-night, gentlemen, is extremely difficult, from the fact that I have to contend with a prejudice of so deep a root; for the belief in the heat-giving function of the sun to the earth has been held, I should imagine, from the dawning of intelligence. Nor can our forefathers be blamed, for nearly all the heat-producers in use among uncivilized races are light-givers at the same time; so was it not natural that the unkempt savage who came before us should imagine that the red orb which rolled above him was that great and good God who kept him warm. But surely, gentlemen, in this, the nineteenth century, it is time to expose that arrant humbug, the sun, and to show that the earth is independent of his services, in so far, at least, as heat is concerned.

To my fancy the sun worshippers must have had some suspicion of their god, for why else did they make libations of water to the setting sun, which surely, of all things, was *the* one most insulting to throw in the face of a fire.

But now, gentlemen, as, luckily for you, this paper is limited to a few minutes, I will get to work and bring up my artillery of hastily-gathered arguments, hoping, by their aid, to bring down that imposter—the sun—in your estimation.

In the first place, then, I will try to show that the earth does not derive her quantum of heat from the sun at all.

Now the first thing that naturally presents itself to one is, that if you approach nearer a heat-producer you get warmer; but in the case of the sun, if you ascend a mountain or go up in a balloon, you get steadily colder the nearer you get.

Again, looking at the question from another aspect, you cannot feel any heat from an electric arc which is melting steel like butter a dozen yards from you; is it likely, then, that the earth *could* receive the great amount of heat necessary for the support of life at a distance of ninety odd millions of miles.

Someone will, perhaps, say in opposition to these arguments that sunstroke is the effect of the sun's heat upon the brain, and if this were proved, I own it would be a death-blow to my cause; but that same electric arc can give violent strokes of a similar kind to sunstroke at a distance of fifteen yards, while, as I have said before, no heat can be felt at a distance of twelve. It is evident then, I think, that these two arguments alone, if unrefuted, are enough to show to you that the sun cannot possibly be the means by which the earth is supplied with heat. But now arises the question—whence does this heat come?

And here I am helped by a theory sublime in its depth of thought, lately placed before the scientific world by a French *savant*.

This theory in a nutshell, gentlemen, is, that the earth, by her own motion, generates her own heat, and thus is independent of all internal sources.

Now is explained to my satisfaction why the Equator is hot, the Poles cold, and midway between temperate; for as the world spins on her axis, the tropics, as they move fastest, naturally become the most heated; while as the Polar regions merely, so to speak, walk round, there is consequently the region of interminable frost and everlasting snow. Now, at last, too, do the glacier and tropical ages of the world receive a proper explanation, for we have only to imagine in the one case a slowing and in the other case a quickening of the earth's speed of rotation.

We see now, too, if we ascend off the face of the earth by means of a balloon, why the atmosphere grows colder; and this coolness of the atmosphere is that which makes the summits of mountains so cold, as, if it were not for this factor to take into consideration, such lofty peaks would be warmer than the surrounding country.

But someone will, perhaps, ask me why there are certain regions, such as parts of Australia, in such and such a degree south latitude, so much hotter than countries in a corresponding degree north latitude. The answer is obvious, for we all know that when water is converted into steam, much heat becomes latent; therefore, we are indebted for our temperate climate to those very mists and fogs of which we so loudly complain. Now, having brought forward this theory, and tried to show you my application of it, let me say a few words concerning the theory, that the earth obtains her heat from a great internal fire.

Now I must confess that I utterly fail to see how this theory is tenable; for, in the first place, whence does this huge furnace obtain its supply of air? Evidently not from the volcanoes, which are supposed by some to communicate with this central fire, as I believe a column of smoke is usually arising from their craters, and therefore there can be no downward draught. Again, I suppose, if the crust of the earth is only ten miles thick, there is a considerable space inside. Now, if gravity acts from the centre of this space, this blazing rock, or whatever it may be, must congregate around the centre in the form of a globe, and must take its chance of getting fresh fuel from lumps of rock falling on to it from the inner surface of the earth's crust—a very precarious method, I should imagine, of keeping up such an important affair as the earth's heat.

Gentlemen, I have tried my best to uproot some of your prejudices in favour of the sun; now let me, in conclusion, show you how little that luminary deserves our love and veneration.

In countries where the sun is most seen the race of man is unintellectual and debased. In such countries the beasts are wilder and more savage, the insects more numerous and more loathsome. Such a country is infested by those classes of the animal kingdom that carry poison, and even the vegetables rank among them,

as inhabitants, flesh-devouring and fly-tormenting species. Thus we have, gentlemen, the whole voice of Nature crying out against the sun, while man—wretched man—still goes on worshipping that fiend in angel's shape, hymns him in poetry, lauds him in prose, and teaches his young the same precepts, by not allowing them to go into the garden and play unless the sun shines.

W. BLIGH.

# Green Extracts.

## PECULIAR DEFORMITY DUE TO SCIATICA.

In the *Archives de Neurologie* for January, is a paper by Dr. Babinski, on the above subject. It describes five cases of sciatica, which were observed in Charcot's Clinique, all of which presented this peculiar deformity. The trunk was markedly inclined to the healthy side, slightly flexed on the pelvis, and a little rotated on its long axis. The foot on the diseased side rested on the ground, but the whole weight of the body was thrown on the healthy limb. They were all cases of severe sciatica, and the deformity appeared to be related to an increase in the severity of the symptoms.

The explanation given was that the patients assumed this attitude to avoid the pain produced by the contraction of the muscles on the diseased sciatic nerve, and that in course of time it became habitual. The author adds that the deformity was so striking that the cases could be diagnosed even before they had been investigated.

The paper is well illustrated by photographs and woodcuts; and for the sake of comparison, two other photographs are added illustrating somewhat similar deformities in hysteria and hip-disease respectively. With regard to the latter, owing to the abduction of the limb on the diseased side, and the flexion of the knee, the patient only touches the ground with the toes or fore part of the foot, which constitutes an important distinction from the deformity above described.

## SUBLUXATION OF THE SHOULDER WITH MUSCULAR ATROPHY.

This case is quoted from a German clinical journal. The patient was a boy of five years of age, who was struck on the right shoulder by the revolving arms of a windmill. Some little time after the parents noticed that the child did not use that arm, and he was treated by galvanism for many months. Three years after the accident he was admitted into a Hospital, with extreme atrophy of the deltoid and other muscles about the shoulder. The head of the humerus had fallen away from the glenoid for fully an inch. The scapular muscles were not paralysed, and by fixing the shoulder the elbow and forearm could be used, though feebly. No anæsthesia or degenerative reaction, but the deltoid, biceps, triceps, and supinator longus only responded slightly to galvanism. The diagnosis was muscular atrophy following inflammatory changes in and around the shoulder started by the severe contusion. A modified excision was performed, and then it was found that the articular cartilages were intact, and that there were no obvious signs of disease in the joint. The case is interesting as regards diagnosis, for in the wards we are constantly reminded that muscular atrophy is one of the most marked symptoms of shoulder-joint disease. However, in two cases not many months ago, this symptom was so prominent that it was attributed to various spinal and nervous lesions, and not to the true cause, viz., destructive disease of the joint. The case quoted above seems to be an exception, and one must suppose that the paralysis was due to laceration of some portion of the brachial plexus, or the roots of the nerves as they arise from the spinal cord.

# Correspondence.

*To the Editor of* Guy's Hospital Gazette.

Dear Sir,—I send you for insertion—if you think them worth it—a few clinical observations made by me some years ago, which, whatever their value, I believe to be at least original, not having seen any of them mentioned in the "Text Books."—Yours truly, A. Cheness.

## HALF-A-DOZEN CLINICAL OBSERVATIONS.

1. In tubercular meningitis (especially in children) the eyes move *independently*, one rolling outwards, perhaps, while the other remains stationary; both may turn inwards; or, most characteristic of all, *both external recti may act simultaneously*, so that a kind of *double divergent* strabismus is temporarily produced. The movements of the eye-balls, in fact, resemble those of the chameleons.

2. In chorea, the iris may be affected, so that at one moment the pupil may be contracted, at another widely dilated. This might be of some importance to remember in cases that are under treatment by Belladonna.

3. On two occasions I have noticed a most peculiar *earthy* odour about patients with acute yellow atrophy of the liver. In the first case (which occurred at Guy's somewhere about the year '75) I did not observe this until the disease was advanced and already clearly diagnosed. But so distinct was it, and such an impression did it make upon me, that several years afterwards (at the Sussex County Hospital) when an obscure case of jaundice, *with enlarged liver*, came under my treatment, the presence of a similar smell, which I immediately recognised, induced me to foretell the advent of acute yellow atrophy; a prediction soon verified by an autopsy (the liver having meanwhile rapidly shrunk).

4. On carefully listening to fœtal heart-sounds shortly before delivery, I have felt satisfied that I have heard them accompanied by *bruits*, which I at first thought indicative of congenital heart-disease, but which I now believe to be due to patent ductus arteriosus and foramen

ovale. Indeed, one would naturally expect some sort of *murmur* so long as these openings or channels remained unclosed.

5. In cirrhosis of the liver, I am convinced I have heard, on applying the stethoscope, a "*bruit de diable*," due, no doubt, to compression of large veins (portal and perhaps hepatic) by the contracting tissue. I think this might be an aid to diagnosis in uncertain cases.

6. I remember a man being brought into Clinical Ward (about the year 1875) in a state of coma, to whom enemata of brandy were administered amongst other restorative measures. Each time the stimulant was introduced into the rectum, a fit of coughing occurred, owing, I imagine, to a reflex impression conveyed along the sympathetic up the walls of the intestine to the stomach: there influencing the terminal branches of the pneumogastric, and so, continuing its course upwards, finally reaching and irritating the nerves distributed over the air-passages. A. CHENESS.

## NOTES ON PATHOLOGY.

By DR. R. E. CARRINGTON.

*(Continued.)*

### KIDNEY.

#### SMALL WHITE KIDNEY.

This is an important form, because it raises the question as to whether it is the large white kidney contracted down to granular, or the red contracted granular, which has become affected by acute epithelial nephritis. It may be taken almost as certain that if a young adult dies with the symptoms of granular kidney, the small white kidney will be found.

1. *Size* and *Weight* small.
2. *Shape* deformed.
3. *Colour*, pale yellowish white.
4. *Capsule* thick, adherent; *surface* granular or irregular.
5. On *Section*, the cortex is thin, of the same colour as the surface, often containing cysts; the vessels are thick.
6. *Microscopically.*

In addition to the changes in the connective tissue (increase), thickening of the capsules, and deformity of the Malpighian bodies, the tubes will be found blocked by proliferation of epithelium, and sometimes by casts. In short, the appearances are those of interstitial nephritis with those of epithelial nephritis.

Clinically, the sequence is generally: Attacks of dropsy and scanty urine (acute nephritis) in a patient, the subject of chronic nephritis.

#### LARDACEOUS KIDNEY.

1. *Size.* Enlarged, and enlargement becomes great.
2. *Colour* is pale yellowish white.
3. *Capsule* strips readily, and leaves a smooth surface.
4. On *Section*, cortex is smooth, but normal pattern remains distinct.

Tested with iodine, the part turns a deep mahogany brown. The first parts to show reaction are the bases of the Malpighian pyramids, and the Malpighian bodies.

The later stage differs from this, for the lardaceous material appears to set up irritative changes, and in consequence both tubal and interstitial changes supervene.

*Microscopically.*

In the early stage the small arteries are infiltrated by the translucent gelatinous material. The change begins in the inner coat, and invades the middle; and when the condition is extreme, the arteriole is converted into a translucent tube. The Malpighian glomerulus is converted into a little translucent mass. The epithelium of the tubes remains distinct, and the tubes become full of hyaline casts. These casts are said (by Dickinson) to exhibit the lardaceous reaction.

*Later stage.*

When the epithelial and interstitial changes are added, the tubes become blocked with proliferated and altered epithelium. The connective tissue undergoes great increase, and the surface becomes granular; and in cases where the interstitial changes are in excess, the organ becomes contracted, and more or less deformed.

It is universally admitted that in the small contracted granular kidneys, that exhibit the lardaceous reaction, the initial change is the lardaceous.

A kidney exactly like that described as "small white" very frequently shows the lardaceous reaction, and this furnishes one mode of origin of this form of kidney.

#### RELATION OF THE DIFFERENT FORMS OF BRIGHT'S DISEASE TO ONE ANOTHER.

1. Large red = Acute nephritis.
2. Large white = Chronic epithelial nephritis.
3. Small red = Granular kidney, interstitial nephritis.
4. Cystic kidney.
5. Small white = mixed 2 and 3.
6. Lardaceous.

We may dispose at once of the cystic and lardaceous forms.

*Cystic* is a form of granular kidney in which cyst formation is the predominant feature, and when it has any clinical aspects they are those of granular kidney.

*Lardaceous* kidney stands by itself, and has the course just described.

*Acute nephritis* either gets well, or forms the large white kidney. This is universally admitted.

*Large White* either arises in acute nephritis, or is a chronic change from the first. The last is not universally admitted; the first is.

*Large White* probably in the majority of cases is fatal as such. But in a small minority it is said to run on to granular kidney. Dickinson advocates this origin of the

granular kidney strongly, but only for a small proportion. He quotes several cases from children, of which the following is one of the best:—"A boy died at the age of 11, who had had good health until attacked by scarlet-fever three years before. He was never well after, and suffered from headache, vomiting, and drowsiness. He got albuminuric retinitis, and urine contained albumin, granular and fatty casts. He died with granular contracted kidneys."

To the epithelial changes interstitial hypernucleation is added, and the nuclei become converted into fibrous tissue, and the kidney becomes small, contracted, and granular; *i.e.*, one mode of origin of the small white is in acute nephritis, but it seems certain only in a small proportion of cases.

*Granular kidney* (small red) appears to arise as follows:—

1. Insidiously, without any known cause, in most cases.
2. In connection with gout.
3. In connection with chronic lead-poisoning, probably without gout.
4. In a few cases as a result of acute nephritis through the large white kidney.
5. Probably from chronic alcoholism.

The preceding refer to the small red kidney. Now, there is little doubt that acute nephritis may arise in a red granular kidney. The result will be that epithelial changes would be added to the interstitial, and the small white kidney will result.

*Small white* may arise—

1. As a consequence of lardaceous disease.
2. As an infrequent result of acute nephritis.
3. As an acute attack in the red contracted granular kidney.

*(To be continued.)*

## EXAMINATION PAPERS.

### Final Conjoined (M.R.C.S. & L.R.C.P.)

### SURGERY.

1. What are the relations of the right kidney, and the relative position of the vessels and ducts at the Hilum? Describe the operation of exposing the kidney by a lumbar incision.
2. Describe the operation of Syme's amputation of the foot, enumerating in their order the structures divided.
3. Describe a case of Traumatic Rupture of the Urethra, complicated with Extravasation of Urine. Give the treatment.
4. Describe an ordinary case of Cut-throat, with details of the injury inflicted, and the treatment to be adopted.
5. Give the changes which take place in the Spine in a case of lateral curvature. Describe the treatment you would adopt.
6. Describe the symptoms, prognosis and treatment of a case of Cutaneous Erysipelas following a wound.

### MEDICINE.

1. Describe a case of exophthalmic goitre. What is its probable physiological cause and character? What are the most appropriate methods of treatment?
2. What are the morbid appearances of dilated bronchus? In what association is it commonly met with, and by what signs may the conditions sometimes be recognised during life?
3. Describe the condition of urine generally found, the chief complications to fear, and the appropriate treatment and general management:—
   (*a*) In a case of acute nephritis.
   (*b*) In one of chronic nephritis in a gouty patient.
4. Under what circumstances does coagulation of blood take place in the living body, and what are its results?
5. In death by drowning, state the necessary duration of immersion, and describe the external appearance of the body. What morbid changes would probably be found in the brain, trachea, lungs, and stomach?
6. What sanitary precautions should be taken to diminish or prevent the spread of enteric and scarlet fever, respectively, in a district where they have broken out?

### MIDWIFERY AND DISEASES OF WOMEN.

1. Describe the boundaries and relations of Douglas' Pouch, and the effusions which it may contain.
2. Give the clinical history of a typical case of Tubal Gestation.
3. Describe the natural mechanism of a Vertex Presentation, the occiput being behind and to the right.
4. Enumerate the causes of the various forms of Post Partum Hæmorrhage. Give their differential diagnosis, and describe and explain the treatment you would adopt.
5. Describe the symptoms and treatment of Putrid or Septic Intoxication (Sapræmia).
6. A patient complains of irregular profuse hæmorrhages, offensive watery discharge in the intervals, pain and wasting. She is anœmic. On examination, the uterus is found slightly enlarged, the cervical canal admits the finger, which enters a cavity with ragged uneven walls. Comment upon the case, stating your diagnosis, and the conditions which would influence you in advising as to treatment.

# Sport.

## RUGBY FOOTBALL.

Guy's *v.* Blackheath.—Played at Rectory Field on January 21. Blackheath kicked off towards the Pavilion goal, and the first scrimmage was formed on Guy's twenty-five line. Jordan, by a splendid run, transferred the game to the home territory, and so well did our forwards play that, until half-time, the ball was seldom

taken to their side of the half-way line. Bryant at half and Mitchell and Jordan at three-quarter were in rare form, and never allowed Fleming or Hubbard, who were badly backed up, to become dangerous. Just before half-time, Jordan made a long run, and on being cleverly collared near the line, transferred to Bryant, who scored a try. Mitchell was not successful with the place. After change of ends the Blackheath forwards showed up much better for a time, and looked like scoring, Standing and the two Spurlings being especially prominent. Fleming put in a good run down the touch line, but was collared by Bryant. Jordan and Mitchell made a long run each, and Evans would have got in once after a good dribble but stopped too soon to pick up the ball. A dribble by Spurling, Carpmael, and Marriott relieved the home line, but our forwards were faster and better together than their opponents, and gradually worked them back to the twenty-five, from which distance Jordan, by a brilliant run, got in between the posts, and Mitchell kicked a goal. Blackheath were then the aggressors for a time, but just before "no side" Instone scored another try for us, and, the place kick from the touch line failing, we retired victorious by 1 goal and 2 tries to nil. This is the first time Guy's has beaten Blackheath, and coupled with the other good performances of our team, notably against London-Scottish and Wakefield, it makes it very hard to understand how we came to allow Thomas's to beat us. The teams were:—Blackheath—H. M. Fletcher, back; J. Le Fleming, C. G. Hubbard, F. Pocock, three-quarter backs; W. P. Carpmael, N. Spurling, A. Spurling, J. Hammond, H. B. Marriott, T. O. Raw, W. Heasman, Pentiado, A. N. Other, forwards. Guy's—S. Wallis, back; W. G. Mitchell, H. M. Jordan, H. L. Evans, three-quarter backs; H. G. Steele, J. H. Bryant, half-backs; F. G. Swayne, A. Allport, J. Fawcett, Rogers, N. Instone, Rygate, Pratt, Wilks, W. Bligh, forwards.

This Blackheath match was not down on the card, but we were able to bring off our two other fixtures—our 2nd defeated the Saracens 1st by 1 try to nil; and our 3rd team (its first appearance on any field) fought a noble battle with Saracens 2nd, and lost by 4 goals to nil.

GUY'S *v.* OXFORD UNIVERSITY.—Played at the Parks at Oxford on Saturday, February 11th. As this was the first time Guy's have visited Oxford it was a pity we could not take a representative team. Mitchell, Jordan, Evans, and F. G. Swayne were all absent, and as our forwards proved themselves quite equal to the University pack, it is not too much to say that if we had had our proper three-quarters, the score at the end would have been very different to what it was—2 goals and 2 tries to nothing, against Guy's. Rain fell almost the entire game through, and the ground being in a dreadful condition, put dribbling or clever running out of the question. Fleming was the first to score by dropping a neat goal, and soon after Wallis was obliged to touch down. Christopherson then got in between the posts, Evans successfully taking the place. Guy's forwards made a good rush down the field, and Bryant nearly succeeded in crossing the line, but the game was soon transferred to our quarters again, Wilson scoring another try for the 'Varsity, Kitto failing with the kick. After half-time Guy's played up much better, and Oxford were only able to place one more try to their credit, gained by Fleming. Christopherson at three-quarters and Evans and North forward, showed up most for the 'Varsity, while both halves, and Wallis, and all the forwards played hard for Guy's. Teams:—

OXFORD UNIVERSITY.—W. Rashleigh (B.N.C.), back; P. Christopherson (University), C. J. N. Fleming (Queen's), J. B. Sayer (Queen's), three-quarter backs; W. G. Wilson (Worcester), R. L. Paterson (Keble), half-backs; R. C. Kitto (Keble), D. W. Evans (Jesus), M. J. Glubb (Exeter), R. D. Budworth (Magdalen), R. S. Giles (Magdalen), T. Parker (Brasenose), E. G. North (Keble), G. Fowler (Oriel), A. V. Stephens (Jesus), forwards.

GUY'S HOSPITAL.—S. S. Wallis, back; C. J. Prime, F. M. Russell, H. Barr, three-quarter backs; H. G. Steele, J. H. Bryant, half backs; A. D. Fripp (capt.), A. Allport, J. Fawcett, H. B. Marriott, F. J. Nisbet, N. Instone, W. G. Rogers, H. Blygh, H. Wilks, forwards.

## SURREY COUNTY ASSOCIATION CHALLENGE CUP.

### FIRST ROUND.

GUY'S HOSPITAL (holders) *v.* DULWICH, at Greyhound, Dulwich, on January 28th, ending in a draw; no goals scored after two hours play. We had the misfortune to lose the services of F. H. Brown after the first twenty minutes from an injury to his knee. Just previously to this he had sent in a warm shot, which the goal keeper seemed to stop behind the post,—a goal was claimed, but not given.

Our team consisted of H. B. Bolus (goal), A. C. Roberts, G. W. A. Mitchell (backs), E. J. D. Mitchell (captain), C. D. Muspratt, C. G. Roberts (half-backs), F. B. Brown, H. A. Smith (left), O. J. Bradley (centre), A. T. Brown, H. J. Holman (right).

The tie was replayed on the following Saturday, and ended in a victory for us by 2 goals to 1. W. Mitchell scored soon after the start for us by a good shot, and shortly afterwards Smith rushed the ball through from a centre by Holman.

Just before changing ends, owing to a misunderstanding between our backs, their centre got away and scored. After half-time we had the best of the game, and ought to have scored again.

Our team was the same as that on the previous Saturday, with the exception of W. G. Mitchell and John Roberts, who took Bradley's and F. H. Brown's places.

GUY'S *v.* REIGATE PRIORY.—This Match in the 2nd Round of the Surrey Cup Ties resulted last Saturday in our defeat by three goals to two. Our opponents were a very strong team, and we were severely handicapped by the absence of Bolus, and injuries to a couple of our men. Our regular goal-keeper could have saved the match.

Guy's Hospital Gazette,
*MARCH 3, 1888.*

## NOTES ON A CLINICAL LECTURE

Given by Dr. GOODHART, 18th Feb., 1888.

Henry T—, æt. 23, in 2, John. Sent up to the Hospital as a case of typhoid, with history of a fortnight's pyrexia, and diarrhœa.

*Family history.*—Unimportant.

*Personal history.* — Rheumatic fever at 16. Since then liable to coughs and colds. This winter has had a cough gradually increasing in severity.

*Present attack.*—A fortnight before admission, seized with rigors one evening. Took to his bed feeling feverish. Diarrhœa on and off ever since. Had medical advice, and his case was diagnosed as one of typhoid.

*On admission.* — Well nourished and well grown. No marked distress, but seems weak and tremulous. Face rather pale and sunken, but some flush about cheeks. Ears congested. Finger tips clubbed.

Pulse 112. Respiration 35. Temperature 101·4.

Abdomen full, no tenderness; spleen not perceptible; no rash; no fulness in right iliac region. Liver comes about 1½in. below ribs.

*Alimentary system.*—Lips flabby and marked by teeth, greyish sordes. Teeth fairly clean. Tongue large and flabby, slightly furred on dorsum, rather pale and markedly tremulous; fairly moist; no fissuring.

*Circulatory.*--Pulse rapid and markedly dicrotic. Apex beat in 5th space vertically below nipple. Slight soft prolongation of first sound at apex. Sounds otherwise normal.

*Respiratory.*—35. Chest well formed, sides move equally and well. Percussion note good all over, unless there be some slight impairment of resonance over left apex behind. A pleuritic rub can be felt and heard in lower half of right axillary region. *On auscultation,* moist sounds everywhere, but least at left apex behind. Rhonchus, sibilus and râles of all sizes—coarsest all round lower half of right lung, finest at lower part of left axillary region. Rhonchus most loud over right apex. Fewest adventitious sounds over left apex behind.

*Urine.* Copious lateritious deposit—merest trace of albumen.

Dr. Goodhart pointed out that this might be one of many things, viz.:—

Typhoid. Acute tuberculosis. Ulcerative endocarditis. Osteitic pyæmia (Acute necrosis). Latent pneumonia.

and proceeded to relate the difficulties that had attended the diagnosis of a case of pneumonia lately in Philip, which was first taken to be typhoid.

i. *In favour of typhoid.*—The sudden onset—the rigors—the diarrhœa—the full abdomen—the tremulous state and general aspect.

*Against:* No spots—no enlargement of spleen — tongue not that of typhoid—intellect quite clear.

ii. *In favour of tuberculosis.*—Clubbed finger tips — much pulmonary disturbance — the enlargement of the liver.

*Against:* Apices sounder than bases — the general tremor in excess of his fever.

iii. *In favour of ulcerative endocarditis.*—The history of rheumatic fever—the existence of a bruit.

*Against:* Spleen not enlarged.

Dr. Goodhart then related another case which at first simulated typhoid, then pneumonia, afterwards developed an aortic murmur, and proved to be a case of ulcerative endocarditis.

Passing on to the consideration of typhoid:—

*General symptoms.* — Frontal headache, so severe that it must be treated, though only a symptom—generally passes off by end of first week. If it lasts longer suggests tuberculosis (Gull).

Vomiting, may be very obstinate. Subsides with the headache.

Rash and enlarged spleen appear about same time.

Bronchitis.

Temperature. The chart, not the diagrammatic figure described, if the temperature be taken every four hours as it should be.

*Differences in typhoid in children and adults.*—The fever, in 50 per cent., aborts in a fortnight in children—more remittent character (may be simulated by gastric fever (infective gastritis) and by tuberculosis. In the former there is the fetid breath; in the latter the child is more ill).

Pallor and emaciation in infantile typhoid—in them a wasting disease.

The tongue in children more beefy, fissured and glazed.

Cerebral symptoms. Delirium most common in children — often mistaken for tubercular meningitis (Note.—Delirium often an indication for more stimulants in adults; more difficult to treat in children).

Constipation more common in children.

*Post Mortem.*—In children the intestinal ulceration less severe—very superficial. In children, therefore, not the same fear of perforation.

*Treatment.*—Food. Exclusively milk diet deprecated. Dr. Goodhart would suggest milk and broth in equal parts—would give more variety of food with ordinary precautions. Quantity often as dangerous as quality. "Milk gives a bulky stool." Eggs, cream, barley water, digested foods may be necessary—the patent meat juices and extracts—jellies, plain soft biscuits. Beef juice said by some to produce ptomaines—this questionable.

*Fever.*—Quinine useless except in remittent forms, where there is possibly a malarial tendency. Antipyrin, antifebrin, or thallin. Antifebrin the best—apt to become inefficacious if persisted with. Begin cautiously with small doses.

Questionable how much is gained by thus temporarily sending the temperature down and leaving the disease untouched.

Cold water preferably, or ice bag to head has not the depressing effect of drugs.

Abdominal distension — important—a grave symptom if excessive. Much constipation must be relieved by enemata. Ol. terebinth. ℥ x useful.

## A TABBY-CAT NARRATIVE.

*To the Editor of* Guy's Hospital Gazette.

Dear Mr. Editor,—Though my appearance is that of an ordinary cat, such as you might meet any day, there are distinguishing peculiarities about me; still, I am quite aware that it would ill-become one in my position to vaunt the graces of body and mind with which I am endowed by indulgent Nature.

Having had some years' clinical experience, I am able to write myself "of full curriculum (sine diploma)," and I find that advertisement sufficiently dazzling to the average feline intelligence. In this respect, indeed, it would appear that we much resemble certain amongst the "lords" of creation, who are willing enough to lose sight of the "sine diploma," provided there are present a look of profundity, a scantiness of hair on the crown, and a trick of scrutinising the patient impressively.

Many are the friends I make, as I saunter softly, lazily along, my little bell tinkling sweet music the while. That little bell! It has ere now proved my salvation, for often, when I have been strolling in the twilight, mewing gently to myself, in that drear hall where the poor most do congregate, my relatives and friends about me, certain rude fellows, live-body-snatchers, have rushed in on us, defenceless Sabines, and carried off our wives and little ones (and our young men and old, for that matter), have rushed in, and, with discordant yells, have borne them away to an iniquitous den known as the H. P. room. Whatever H. P. may mean, it cannot be "Have Pity." Thence they never emerge alive, being anæsthetized (*sic*). But as for me, I pass unhurt; for with my bell I am as safe as was the vestal with her lamp of purity. Though I confess to a sense of surprise that such ruffians should retain amongst them a spark of chivalry.

From my large acquaintance I am able to single out one enemy only—that reckless boulevard *gamin*, the Club cat. This creature has absolutely no delicacy of feeling, and though mine host of the "Ship" pampers him, as I am informed, to an incredible extent, so that fatness exudes at every pore, and his liver might well be sold for that of a Strasbourg goose, he still retains the

coarseness of manner of the *canaille* whence he sprung. Since my little Philippa was born my anxiety has naturally increased a hundred-fold, and I fear me that Barabbas (for so I call the barbarian across the way) will soon poison her young mind with evil communications. I am therefore overjoyed at the proposal made to me (by a good Samaritan) that she should be removed to the Convent of St. Anthony, which stands high above the Lydian plains. There, should she happily pass through the ordeal known (by the ignorant) as "St. Anthony's fire," her education will be completed.

But I diverge from my original purpose in thus laying bare family matters to the unsparing probe of cynical men. Let me merely remark further, that it is evident, from the easy grace with which I leave one subject for another entirely irrelevant, that the principle of Association of Ideas obtains in *our* thought-processes too. So much, indeed, is granted us by Man, in the plenitude of his generosity; but in order to disprove his insolent assertion that we are unable voluntarily to change the current of our thoughts, and that life is for us a long dream of reflex cerebral activity, I now pass on to another subject, by sheer force of *Will*.

Those ingenuous youths, the clerks who frequent our wards, have long been to me a source of interest—such delicate tints of Nature do they present, such varying degrees of professional zeal! Is it necessary that I should touch, though ever so lightly, upon that type which rushes, tornado-like, through the stillness of the sick-chamber? The eager pallor of its face, the business-look of its trouser-end, which seems to say, "I have *work* to do; I cannot sit idly in graceful folds upon my patron's foot," and so flaps restlessly against his malleoli. This is the class which delights in pouncing upon the alumni of our hospital, and putting "posers" in stealthy *sotto voce*—"How much water do you think, sir, there is in the anterior chamber of the eye?" The depth of thought which evolved that question, the momentous issues dependent on its answer, our poor intelligence must fail to comprehend.

We pass by easy stages to the enthusiast who delights in propping up the wasted phthisical patient, that he may eke out a râle behind, $\frac{3}{4}$in. below the angle of the scapula. "Patient," says the unerring report, "refused his chop yesterday. To-day he took it. He further expectorated sputum containing air-bubbles"—specifying the number. Which, being faithfully bound, is handed down to posterity. The enthusiast will sometimes betray a sympathetic side to his character, which impels him to conduct a sort of medical mission at the bedside.

But a third variety raises in me a faint spark of interest. Look at this gentleman: he has just stepped out of the Arcade, and, strange though it may seem, proposes to earn his living by writing the conventional prescription with its wearisome termination—"m. ft. mist., cap. cochl. ii. magna ter quotid." The captivating symmetry of his trousers is the reward of forethought over-night, what time the silent stretcher performs its ungrudging task. The stern inflexibility of his collar convinces me that there is still starch in Gilead, and London smoke has not the bad taste to mar its snowy purity. Cuffs vie with collar, and necktie surpasses both; and thus the figure glides on, 'midst subtle odours of ylang-ylang. We examine our patient's tongue, we feel his pulse and take his temperature (perchance), but a just heaven will not expect us to stoop (literally or figuratively) to knee jerks and auscultation.

See yonder youth with "smiling morning face": he is his mother's joy and father's proud delight. (I trust my feelings may not launch me into blank verse.) Twenty-one years have passed, and left him careworn, sad, and *distrait*—at home, I mean, when, in the twilight, he recounts to wondering relatives the horrors of the day. He lacks confidence in the use of his "scopes"—which, by-the-bye, are new—the gift of the fond ones. A mediocrity among his fellows, he is harmless. In the wards he is gently petted, runs messages, and is rewarded with an occasional flower.

How shall I describe the individuals (whose name is legion) who, with excellent taste, prove the registrar and house-physician to be incompatibles, and precipitate the physician with concentrated solution of registrar? Do they take a malicious delight therein? I scarcely credit them with so much humour. When hard pressed in the fray with their physician, I have known them even to drag in the names of his unwilling colleagues, and, when desperate, they will give chapter and verse from "Carter," or some such voluminous treatise. For such as these, hints, jostlings and rebukes are meaningless. Let us leave them, for they are beyond the pale.

My elderly friends with manly beards and mustachios, how privileged are you to possess such excellent professional manners! Can it be that Fortune, in thus providing you with hirsute appendages and glib tongues is kindly tempering the wind of lay criticism to shorn lambs? Shorn mentally, though not bodily. The ease and confidence with which you roll out minute directions to the captivated lady-patient has long been my admiration. You do not hesitate—and you succeed. In justice to yourselves get legally qualified, and take an early opportunity to launch into literature upon such subjects as "Wear and Tear of Life," "Our Food and its Uses," which are adapted to the lay mind, and are not too drily scientific.

As a Cat I can speak but dubiously; yet I presume that every Man has some self-respect, and the question now interesting me is—What degree of self-respect is compatible with the wearing of a dirty collar? If a direct ratio exists between the two, I fear many of my friends have but little self-respect. But I can understand that it is a great thing to entertain little respect for yourself and much for science, which is the peculiar attribute of those to whom I refer.

I am loth to weary you, dear Mr. Editor, with my crude observations, or I should relate the story of an attempt that was made to utilise me as a clinical cat. I will only say that all the caressing gestures and

endearing epithets spent so lavishly upon me, did not elicit a single demonstration of the *frémissement cataire*. But I beg of you to accept a salaam and a purr from your affectionate TABITHA.

"Philip," February 26th.

## ANGINA PECTORIS.

In bringing this paper before your notice, I am afraid I may be accused of plagiarism after the appearance of Dr. Goodhart's very excellent article in the Guy's Hospital Reports, which, since writing this, I have read with great pleasure. Nevertheless, it is put together, for the most part, from notes made towards the end of 1884, in reference to a patient under the care of Dr. Wilks. The case is mentioned at the end of this paper.

There has been so much theorising and discussion on this subject that it would be ill-advised to add thereto, were it not that I hope to be able to reconcile many of the observations that have previously been made.

All agree that Angina Pectoris emanates from the heart; it may be as well, therefore, for a moment, to consider this organ and its work. Having to run its rhythmical course from an early stage of gestation till dissolution, it requires a proportionately large blood supply, and this is provided for by the size and position of the coronary arteries, which are so placed, immediately beyond the free margin of the semilunar valves, that they receive their blood supply during a lengthened period of time, limited on the one hand by the *commencement* of ventricular systole, and on the other by the *cessation* of the arterial systemic rebound; at the same time it is probable that the greater portion enters after systole, while the ventricles are in a flaccid condition, so that disease of the aorta and incompetence of its valves are, with healthy coronaries, the most frequent factors in diminished cardiac circulation.

If the heart do not receive its normal supply of blood and still have to perform its normal function, or if, from intrinsic failing, it be incapable of carrying out the work demanded, it is quite conceivable that there should be cramp or spasm of the muscular tissue in the same way as spasm of the skeletal muscles is produced by "nutrient or mechanical irritation;" and this hypothetical heart spasm is looked upon by many authorities as the cause of Angina Pectoris. My object is to point out that this view is reconcilable with the vast majority of recorded cases, and, therefore, in all probability, with all. It should be remembered, however, that Angina Pectoris is not a disease *per se*, but a symptom occurring in many diseased states and always pointing to a defective relationship between the work to be done by the heart, and its capability of doing that work.

The cardiac muscular tissue would be liable to exhaustion and spasm under the following conditions:—

(A.) When the blood in the coronary system is insufficient in quantity, as in cases of—

1. Atheroma of the coronary arteries,
2. Thrombosis or embolism of the coronary arteries,
3. Atheroma of the aorta,
4. Aortic regurgitation,
5. Aortic stenosis,
6. Hypertrophy of the heart,

(B.) When the muscle itself is wanting in tone on account of—

7. Fibrous degeneration,
8. Fatty degeneration,
9. Fatty infiltration,
10. Partial rupture of the wall with hæmorrhage into it,
11. Pericarditis with effusion or with adhesion,

(C.) When the blood itself is in a poor condition, as in—

12. Some cases of anæmia, &c.

The above conditions have been found after death in association with attacks of Angina Pectoris, while in many cases of that complaint nothing abnormal whatever has been met with, but it is questionable whether, in these negative cases, the microscope has always been employed to prove the healthy condition of the muscular tissue. On the other hand, it may be urged that all these conditions have been found much more frequently in cases where there have been no anginal symptoms at all; this is quite true and easily explicable by the known fact that the heart, like other organs, can and does accommodate itself to quite altered surrounding conditions provided only that these are brought about with sufficient slowness. Witness the much contracted mitral orifice which is not uncommonly found on the *post mortem* table in cases where there have been absolutely no symptoms, either objective or subjective, during life.

In health, the amount of work done by the heart varies considerably, and its blood supply is, presumably, equal to something much beyond its maximum requirements; but there must be a limit to this relationship, and in various diseased conditions the margin is reduced to the minimum, and then hypertrophy, brought on by extra exertion or emotion, upsets the equilibrium and produces spasm, which we call an attack of Angina. It is worth our while to notice here that Angina Pectoris almost always occurs in men, who, naturally, throw much more work on their vascular system than do women; it is common, too, in men who are accustomed to use their intellectual or physical powers, we might almost say, to excess, and thereby keep their vascular system at high pressure, or very near its maximum capacity—such men as John Hunter, Dr. Arnold, Colonel Burnaby, Valentine Baker.

If the spasm theory be the corrective, and the spasm be really produced by inefficient blood supply to the cardiac muscle, or by a want of tone in the muscle itself, the two cases related by Dr. Harris in the S. Bartholomew's Reports for 1879, pp. 86 and 87, are of special interest, as in both these, on account of the history and symptoms, rupture of one of the aortic valves was diagnosed, and therefore the diminution of the cardiac

blood supply, if any, was brought about suddenly. One man, we are told, was seized with an Anginal paroxysm at once, and had recurrences afterwards, while the other was not troubled much till three weeks later, when he was *recruiting* at Margate. Both patients were about thirty years of age, and hard workers, so that it is extremely likely that their reserve of cardiac force had been largely drawn upon.

In some cases the first paroxysm of Angina is fatal, in others the attacks seem to be brought on by any excitement, while in yet others they occur without any apparent cause, or even during sleep, and here in all probability, the action of the heart is impeded by an over-filled or flatulent stomach. Some authorities state that the paroxysm is always, or at least generally, *preceded* by contraction of the arterioles and increased blood pressure. Is this really so? It seems, *à priori*, at least as likely that the rhythm of the circulation being suddenly interfered with by what we have called spasm of the heart, and a general diminution of blood supply produced, the Vaso-motor centres are stimulated, and contraction of the vessels brought about, so that the blood in them, being driven on, accumulates with that already in the Vena cava, &c., and by its presence stimulates the heart to renewed action. We, following Lauder Brunton, seek artificially to relieve the over-strained heart by the exhibition of Nitrite of Amyl or Nitro-glycerine, thus diminishing the resistance and increasing the activity of the organ. These drugs are extremely useful, in fact invaluable, in the relief of Anginal symptoms such as, in a less degree, a glass of curaçoa is useful in the relief of symptoms produced by indiscretions, such as a corporation dinner, but the former drugs no more cure Angina Pectoris, than does the latter cure dyspepsia. And considerable harm may be done by the excessive use of such a drug as Amyl nitrite. This was very well shewn in the case of a patient in Stephen ward,* who was constantly provided with Nitrite of Amyl capsules which he used after each attack of pain or faintness, until, on account of the increased frequency of these attacks, Dr. Wilks ordered the drug to be discontinued, when the patient's condition improved and the attacks diminished in number. The only means of curing Angina Pectoris is by modifying the conditions which cause it, and the chief requisite is time for the system to acclimatise itself to its depraved habits.

The following is Dr. Quain's definition of Angina Pectoris: "An affection of the chest characterised by severe pain, faintness, and anxiety; coming on in paroxysms; connected with disorders of the pneumogastric and sympathetic nerves and their branches; and frequently associated with organic disease of the heart." This definition I should like to see modified thus: "An affection in the chest characterised by severe pain, faintness, and anxiety; occurring in paroxysms, and associated with a variety of disorders; depending on a spasm of the cardiac muscle, produced through its inability, from various causes, to normally perform its function."

* This patient was treated for aortic disease, and died on December 15th, 1884. At the autopsy the heart was found to be enormously dilated and hypertrophied, with apparently healthy valves; the aorta atheromatous throughout its length and with a large aneurismal swelling extending from its commencement to the transverse arch; and the pericardium adherent to the heart except over a small space at the apex.

## OSSIFICATION.

*A short summary for the benefit of first year's students and others.*

As dry as a bone! Verily a true and ancient proverb. It calls to mind the grave digger in Hamlet and the Sahara with its bleaching caravans. But its full significance never dawned upon us until we began to study osteology. And the dryest part of that dry whole was—Ossification. The bones seemed to take to themselves what centres and when they pleased, and the variety in these respects pointed to nothing more or less than sheer cussedness on their part. As drowning men clutch at straws we eagerly grasped the facts that the number of the centres in a vertebra, scapula, humerus, or femur was equal to the letters in their respective names and that the innominate bone told its tale. But worse than all the rest to remember was the times at which the several centres appeared or when they were joined together. From the 6th week of fœtal life to the age of 16 years, up they came. Even the famous imp I summoned to our aid from the depths of the black board did little to alleviate such misery. Now, although the writer cannot pretend to throw any new light upon this subject, it has occured to him that a knowledge of the main facts might be more readily acquired if the broad outlines on which they are arranged were clearly indicated and some reason given for their being what they are.

The question may be fairly asked, why do some ossific centres appear before the rest? Two chief reasons may be given.

1. The function of the part concerned.
2. The amount of bone to be formed by a given centre.

The latter reason explains why the epiphysis which is first to form is in many cases the last to unite. It has to get up earlier and go to bed later than its less industrious relative.

There are four main epochs at which ossific centres appear.

1. From the 6th to the 8th week of intra-uterine life, those for the bodies of the flat and irregular bones and for the shafts of the long bones.

2. During the later months of pregnancy in a few irregular bones such as the sacrum, sternum and ethmoid.

3. From birth up to puberty for the epiphyses of the long bones, especially during the first few years.

4. After puberty most of the "scale-epiphyses" arise, from the 14th to the 18th year. With regard to the time of union of the various centres it may be broadly stated

that those, which like the cranial bones and the vertebral laminæ protect important nervous structures, unite in the first few years after birth, those which affect the dimensions of the trunk and the length of the limbs are separate till from the 17th to the 25th year.

Most bones have one principal centre which appears comparatively early and other secondary centres formed at a late period. It may be taken as a general rule that the larger the amount of bone to be formed from any given centre of ossification, and the more important the function of the part concerned, the sooner will the process commence in that centre. Let us examine the different regions of the skeleton in this light.

*The Skull.*—The centres for nearly all the bones appear about the 7th or 8th week; those for the internal pterygoid plates (4th month), ethmoid (lateral masses 4th or 5th month, cribriform plate 1st year after birth), petromastoid (5th month), and inferior turbinated (5th month) are the principal exceptions. The various centres are almost all united by the 4th year.

*The Spine.*—The principal centres for the bodies and laminæ appear about the 8th week. The importance of the laminæ seems to diminish from above downwards, so that the sacral ones do not appear till about the 6th month. The bodies are most important in the lower dorsal region, and the process which starts there at the 8th week does not reach the lower end of the sacrum till the 10th week, and the axis with the stolen body of the atlas till the 4th month. Bone is found in the lateral masses of the sacrum about the 7th month and in the anterior arch of the atlas during the first year, while the various scale epiphyses appear about the 16th year. Bodies and laminæ unite in the 1st or 2nd year except in the sluggard sacrum; "scale-epiphyses" do not join till the 25th year.

*The Thorax.*—The ribs have each one principal centre, and "scale-epiphyses" which follow the general rule.

The centres for the sternal segments appear in successive months from above downwards, beginning with the highest at the 7th month, but the ensiform delays until the 7th year. The middle segments join at puberty, but the second is separate till the age of 25, the ensiform till 50 and the manubrium often does not unite at all.

Ossification begins in the body and great cornua of the hyoid in the last month of intra-uterine, in the small cornua in the first year of extra-uterine life, and no junction occurs till after middle age.

*Upper Extremity.*—Clavicle and scapula consist of body and "scale-epiphyses," but the coracoid nucleus appears in the first year and joins at puberty. The long bones have each a centre for the shaft starting at the 8th week and epiphyses whose nuclei begin to form from the 2nd to the 14th year.

The principle of first to begin, last to unite is carried out and the relation of size to age is well marked. Compare head, great tuberosity and capitellum of humerus, with the centre for the olecranon.

The epiphyses at the elbow-joint unite at sweet seventeen, the other ends of the bones at the age of twenty.

The carpus is entirely cartilaginous at birth, and its components begin to ossify in succession of size, starting with the os magnum in the first year, but the scaphoid has apparently changed places with the pyramidal. Metacarpals and phalanges are long bones with a shaft and one epiphysis.

The early appearance of the coracoid, capitellar and internal condylar nuclei may be partly explained by their importance in the action of clasping.

*Lower Extremity.*—The main centres of the innominate are comparatively slow in appearing, viz., body of ilium—8th week, of ischium—3rd month, of pubis—4th month. Pubes and ischium join about the 8th year. Secondary centres appear at puberty, the Y cartilage is extinct by the 18th, and the remaining epiphyses join at the 25th year.

In the femur, tibia, and fibula the law of "majores priores" is well shown. The epiphyses forming the knee-joint are so huge that the ossification in them has to begin before birth. The secondary centres join the shafts from the 17th to the 21st year, but the upper end of the fibula is delayed till the 24th.

In the tarsus, the os calcis, astragalus, and cuboid begin in the sixth, seventh, and ninth months, respectively, and the rest follow in size, from the first to the fourth year, except that the scaphoid has again changed its place, this time with the external cuneiform. The os calcis has an epiphysis forming in the tenth, and joining in the fifteenth year. Metatarsus and phalanges agree pretty closely with their correspondents in the hand.

At first sight it may appear strange, that while junction occurs at the elbow before it takes place at the shoulder and wrist, it does not happen at the knee till some time after the epiphyses at the hip and ankle have joined. On comparing the several articulations however, it will be seen that the security of the knee, shoulder, and wrist does not depend nearly so much upon mutual adaptation of the bony surfaces as in the elbow, hip, and ankle. Hence the greater complexity of the bones forming these latter involves their earlier completion, and this is associated, as elsewhere, with a comparatively late development.

The upper epiphysis of the fibula is smaller than the lower, and so begins to ossify later; but it has to keep pace with the tibia in length, and forms part of a simpler joint than the ankle; hence it does not unite with the shaft till some time after the other extremity is joined.

## NOTICE.

We are informed that the Winter Session will end on March 24th.

In the Lecture arrangements for 1888 of the Royal College of Surgeons, we see that Mr. Bryant has been appointed to give three lectures in June. The subject is not yet announced.

# Passim.

Last week a gloom was thrown over the wards by the sad and untimely death of one of our nurses, who succumbed, after a short and painful illness, to diphtheria, contracted from a case which itself terminated fatally. Anyone who has witnessed the careful, unsparing attention bestowed upon the tracheotomy cases, will have cause for wonder that diphtheria is not more frequently taken by sisters and nurses. Though the statement in the medical journals of last week is exaggerated, and the supposed cases of diphtheria among nurses and students here were principally cases of "hospital" throat, it is inexpressibly sad that a useful and self-denying career has been thus early brought to a close. The best disposal of cases of diphtheria is a difficult problem, which calls urgently for consideration.

A Smoking Concert in connection with the Football Club will be held at the "Falstaff" in Eastcheap, on Saturday, March 17th at 8 p.m. Mr. Durham has consented to preside, and we hope that all those who possibly can, will show their appreciation of his kindness by being present. Tickets may be obtained from any Member of the Committee.

We publish in this number the list of subscribers to the Cricket Cup Fund. We are glad to see that the appeal we made a short time back has been productive of such good results. The amount collected so far is £21 3s. 6d. about two-thirds, we believe, of what is required. The remaining third, we are certain, will be readily made good by those who have not yet subscribed. It says exceedingly well for the *esprit de corps* of the Hospital that such large sums are so readily collected.

Most of our readers have probably heard of the death of Mr. J. H. Walsh, F.R.C.S. Editor of the Field, better known perhaps as "Stonehenge," but many are probably unaware of the fact that he was a Guy's man. Mr. Walsh was born in 1810, and for many years held a country practice in Worcestershire. He relinquished medicine in 1852 and took to sporting literature. He not only edited the Field with great ability, but published works on "Domestic Economy," "Domestic Medicine," and the "Dog in Health and Disease," &c. He was best known as the Author of "British Rural Sports" of which some fifteen Editions have been issued, and which still remains the standard work on the subject of which it treats.

We regret to announce the recent death of Mr. St. John O. Rands. He was operated on for piles, and this comparatively harmless operation was unfortunately followed by pyæmia. He entered the Hospital in 1878, and before leaving took the qualifications of M.R.C.S. and L.R.C.P. At the time of his death he was Assistant House Surgeon at the General Infirmary at Northampton.

At the time of going to press, we hear that our Association Football team for the fourth year in succession has, after a hard fought game with St. Bartholomew's, which ended in a victory of one goal to nothing, won the Inter-Hospital Association Challenge Cup. We heartily congratulate the team, and the more so as two or three of its regular members are disabled, and were unable to play. The Cup has been in our possession ever since it was first started.

## RECENT HOSPITAL APPOINTMENTS.

### House Surgeons.

March: A. H. Williams, M.A., M.B., B.C., Cantab.
May: F. S. Hawkins, B.A., M.B., B.S., Oxon., F.R.C.S.

### House Physicians.

March: F. Heatherley, M.B., B.S., F.R.C.S.
May: C. F. Routh, M.B., B.S.

### Resident Obstetrics.

March: E. W. Du Buisson.
April: W. Fisher.
May: G. Black.

# NOTES ON PATHOLOGY.

By Dr. R. E. Carrington.

*(Continued.)*

## KIDNEY.

General Effects of Chronic Bright's Disease.

The following effects are for the most part common to all the kidneys described under the head of Bright's disease, but with different degrees of severity and variation in the particular forms.

1. *A loss of albumen. Imperfect excretion of the urinary products, and their accumulation in the blood.*

(*a*) The loss of albumen in the most extreme cases is but small, probably not exceeding a few drachms a day, so that there must be some other factor than this to account for the anæmia and wasting.

(*b*) Probably the circulation of the non-purified blood is the other cause of perverted nutrition.

The question is raised as to what the substances are which by circulation in the blood set up uræmia.

It is true that large amounts of urea may be injected into the veins of animals, and the only effect will be its rapid excretion by the kidneys. But it is said that if the ureters or renal arteries be tied, the injection of urea will produce uræmia. Experiments on the latter point are, however, very variable.

Frerichs thought that the noxious material was ammonium carbonate $(NH_4)_2\ CO_3$, produced by the decomposition of urea by the action of a ferment in the blood. He further points out that uræmic patients have a peculiar ammoniacal smell. Experiments have been made by—

(i.) Analysing the breath and blood of uræmic patients, but with discordant results.

(ii.) Injecting $(NH_4)_2\ CO_3$ with or without ligature of the renal arteries and ureters, or extirpation of kidney. Sometimes convulsions have been produced, but never coma; others have failed entirely.

A third view, which, however, is only introduced to make the subject complete, for it only refers to uræmic coma and convulsions, is that these conditions are due to œdema of the brain and coincident contraction of small arteries. It does not make this view more acceptable that uræmia is very common in granular kidney in which there is little or no dropsy.

2. *Thickening of the vessels.*

No doubt the arteries are thickened, but controversy has arisen as to what elements of the wall are changed.

(*a*) Where is the obstruction?

(i.) Bright put it in the capillaries.

(ii.) Others put it in the arterioles.

In favour of the former view it is held that the tissue changes take place in the capillaries; and that when the impure blood circulates through them, the vital capillary force of the circulation is lost, and the circulation correspondingly retarded.

In favour of the obstruction being in the arterioles, an observation of Gowers is in point, for he found that the arterioles of the retina were firmly contracted in a case of uræmia.

(*b*.) What is the change?

(i.) Dr. Johnson says the change is found in the *hypertrophy of the muscular coat* of the small arteries. He says that this coat is invariably found hypertrophied, and he endows these vessels with a conservative property. That is, that these vessels contract in order to keep impure blood away from the tissues. This, of course, would raise the blood pressure. There is not the least reason to suppose that the small arteries have this function in health.

(ii.) Gull and Sutton's view.

*Arterio-capillary fibrosis.*

These pathologists state that the change is in the outer coat; and that it results in its thickening and conversion into a hyalo-fibroid material. They affirm that Bright's disease is not a disease special to the kidneys; but that the kidneys only take part in a change common to the whole body. Of course the effect of thickened arteries will be impeded circulation, and consequently hypertrophy of the heart. Now, Gull and Sutton point out what is undoubtedly the case, that the following classes of cases are met with:—

(a) Common class of granular kidney with thick vessels and hypertrophied heart.

(b) Moderately granular kidney with ditto.

(c) Healthy kidney with ditto.

And they contend that the sequence is (c), (b), (a).

No doubt there is truth in both statements. What is found generally is thickening of the outer and also of the middle coat; and this combined with more or less degeneration (atheromatous).

3. *Hypertrophy of the heart.*

Probably (Wilks and Moxon) the only case of simple hypertrophy without dilatation is met with in chronic Bright's disease. On account of the raising of the blood pressure, the left ventricle thickens; but sooner or later this compensatory relation is lost.

There must be a limit to the hypertrophy, but the renal and arterial changes still progress. Then the heart will begin to dilate, and in time the cavities behind will begin to reach to the increased pressure; and enormous hearts with all the cavities thickened and dilated are thus met with. The dilatation of the ventricle will drag open and enlarge the mitral orifice, and *mitral regurgitation* often ensues.

*N.B.*—The type of the renal heart is either simple thickening of the left ventricle or a large heart with all the cavities hypertrophied and dilated—valvular disease and adherent pericardium being *absent*.

Quain describes *sclerosis of the connective tissue* of the heart as the result of Bright's disease. But there is no doubt that the increase in size is due to true hypertrophy of the muscular fibres; and these cases of fibroid disease belong to another category.

Masses of fibrous tissue are met with in the substance of the heart muscle, perhaps most frequently in the

septum ventriculorum; and in many cases they are clearly proved to be due to syphilis.

4. *Dropsy.*

This affects all the tissues of the body (beginning in the eyelids and scrotum), the connective tissue generally, the larynx and lungs; passive effusion into the serous cavities, which must be distinguished from inflammatory effusion.

Bright considered renal dropsy to be inflammatory, and this view is held now by some pathologists (Moxon). The point which raises the question is the partial distribution of the dropsy—*e.g.*, ascites without excess of fluid in the calibre of the intestine.

But the general view of renal dropsy is that it is mechanical, and the result of three causes.

(i.) The watery condition of the blood.

(ii.) The high blood pressure.

(iii.) The degenerated condition of the vessels which, although thickened, have lost their vital functions.

5. *Hæmorrhages.*

The result of—

(*a*) High tension.

(*b*) Degenerated vessels.

(*c*) Altered blood.

The commonest are—

(i.) *Retinal;* (ii.) *cerebral;* (iii.) *epistaxis;*

And then perhaps—

(iv.) *Cutaneous*, in the form of purpura of more or less severity.

But it may come from any source—from stomach, lungs, &c.; and of course blood is met with in the *urine*, but this is part of the disease itself in all cases of any acuteness.

6. *Tendency to inflammation,*

(i.) Of mucous membranes: *e.g.*, gastritis, enteritis, bronchitis, pneumonia.

(ii.) Of serous membranes: *e.g.*, pleurisy, peritonitis, pericarditis.

(iii.) Of connective tissues: *e.g.*, erysipelas, œdema (erythema).

All inflammatory conditions in Bright's disease are liable to be suppurative.

7. *Functional effects.*

(i.) Dyspnœa or hurried breathing without pulmonary lesion.

(ii.) Vomiting, diarrhœa, without lesion.

(iii.) Headache, drowsiness, delirium, mania, without cerebral lesion.

(iv.) Coma and convulsions are, of course, most common. All these are believed to be the result of mania.

All the preceding are common to Bright's disease, but the different effects vary according to the form of kidney.

(*a*) In acute nephritis the tendency is to dropsy and uræmia.

(*b*) The amount of cardio-vascular change appears to be a question of time, so that there is little of it in acute nephritis and much in chronic granular kidney. Dickinson maintains that even in acute nephritis the arterioles are decidedly thick. Therefore granular kidney manifests itself more frequently as heart disease than in any other way.

The vascular changes being more extreme, it follows that hæmorrhages are most common in chronic granular kidney. Cerebral hæmorrhage is a very usual mode of manifestation of Bright's disease.

(*c*) In acute nephritis and large white kidney the tendency is to inflammatory affections. Pleurisy and pericarditis are generally suppurative.

Lardaceous kidney is characterised—

(i.) By great infrequency of cerebral complication.

(ii.) Tendency to pneumonia and inflammations generally.

(iii.) As regards dropsy, it occupies an intermediate position, having acute nephritis with extreme dropsy on the one side, and granular kidney with very slight dropsy on the other.

*(To be continued.)*

## ON THE DISTRIBUTION OF THE POCKS IN SMALL-POX.

By the Medical Superintendent of the Hospital Ships.

The conditions for the ventilation of the space between the body and its coverings are constantly present. These conditions are a difference in temperature between the air inside and outside the clothes and the possibility of their communicating. A body at a temperature of 98° partly and loosely enveloped in hair and clothes and moving in an atmosphere many degrees cooler, would produce a continuous play of currents in the space between body and clothes. As the air escaped from within the space, it would be replaced by air from without. If the air carried particles capable of adhering to the surface, these particles would be deposited with varying densities on different parts of the surface, and would adhere where deposited according to the varying nature of the surface. The best aired surfaces would have most, the worst aired least; more would adhere to damp surfaces than to dry. Where the space was constricted by a narrow band, eddies would be produced, and these impinging on the surface would deposit their particles there; but where for wide spaces the covering was closely adapted to the body, there few particles would be admitted. The distribution of these particles might be affected by agencies capable of removing them.

Men who work in dust-laden atmospheres (coal, grain, or hops) have the particles or pollen deposited on their surfaces in varying densities, most on uncovered surfaces, air passages, face and hands. All the covered parts have some; the site of a boot-lace, garter, brace or belt is dirtier than its neighbourhood. The back has more than the chest. Where perspiration does not dry up readily the mapping of the particles is altered. Hardly any sticks to the nails. The conjunctiva is constantly being cleaned. If each particle had life and could vegetate

where it adhered; if its growth varied with the soil and surroundings; if its being produced a pock there, then we have an explanation of the distribution of pocks in small-pox. (In the following the eruptions of the skin in the initial illness are not alluded to.) I believe the *earliest manifestation of small-pox is the eruption on* the air passages. Quite early in the initial illness grey spots can be seen on the palate, looking like circular patches of mildew, about a tenth of an inch across. (In passing: The diagnostic import of this palate eruption is in excluding erythema, lichen, and chicken-pox.) Next, the eruption appears on injured surfaces; then on warm and moist parts; and last on cold and dry parts of the skin. (Compare Fagge, p. 227.) The pocks, however, that appear early mature much more rapidly than the later ones. The explanation surely is that the local conditions on mucous membranes, inflamed and warm moist parts, are more favourable than elsewhere. Next, pocks are generally most abundant on the face, air passages, hands and groins. On the back there are more than on the chest. On the conjunctiva, alimentary canal, and genito urinary surfaces, they are rarely seen. On the scalp the skin at the parting may have a confluent eruption on it, elsewhere it may be discrete; this is well seen in women—a young woman with a fringe having a pustular arc from side to side; an old woman without having it from before backwards. Bald heads are more severely affected than hirsutes. A curly fringe protects the skin under it from pocks. The conjunctiva generally escapes; but even in discrete eruptions the proportion of pocks about the margins of the lids is excessive. Sometimes on the cheek or the side of the nose a confluent patch looks just as if a tear had escaped and transplanted the spores from the eye. On the back the collar frequently marks the boundaries of confluent and discrete areas; on the arms the turned-up sleeves do a like service. If, however, a person has been naked when infected there is often no difference in the densities of pocks on the face, trunk and limbs. Women who wear well-fitting stays protect their waists from pocks by doing so. At the garter sometimes a confluent patch is seen; but very often not. Near a ring the eruption is not markedly increased. The sites of other skin diseases have generally a great abundance of pocks, but not always, especially if dry or well protected with dressings at time of infection. In the feet the distribution of pocks corresponds with the usual distribution of dirt. The nails protect the skin under them from pocks; about two months after the eruption pocks may be seen in the nail, moved up from the matrix. If soon after infection the patient happens to have washed his hands or face, we have an exceptional distribution in these parts, having less than other parts. A man suffered from chilblains, and about the time of infection soaked his socks in turpentine and wore them till all the turpentine had evaporated; he hadn't a pock on the sock-covered area, elsewhere they were abundant. If pocks are ever seen on a fœtus, a serous or a synovial membrane, it is certainly very rare. Almost always the pocks of small-pox occur only on parts where spores could have been deposited by external carriers. A lesion resembling a pock in any other position where it might have been deposited by an internal carrier, is very rare, if it has ever been seen. Apparently the distribution of pocks corresponds with and is governed by the same laws that govern the distribution of dust on the human body.

# Correspondence.

*To the Editor of* Guy's Hospital Gazette.

## ABUSE OF MORPHIA.

Sir—The following may be of interest in showing what extremely bad habits are liable to be induced by a slight want of care and forethought on the part of a medical attendant.

Upwards of 10 years ago, a young engineer, then 24 years of age, fell down the hold of a ship, and sustained such severe injury to his spine that his lower extremities remained paralysed for four months. He was attended by a medical practitioner, who, besides other treatment, administered a hypodermic injection of morphia twice daily. At the end of six months this gentleman suggested that it would save his time and the patient's pocket if the latter were to administer the morphia himself, and for this purpose left an injection syringe and instructions for procuring the drug. Nothing was said at this time, according to the wife's statements, as to the danger of becoming an habitual morphia taker, although some months later the patient was told that he must give up the practice, and this he found now to be quite impossible. Thus for ten years has this man been taking morphia injections, the strength of which has been gradually increased up to *14 grains* of the hydrochlorate per diem, which large dose he had taken regularly for some months. At first the B.P. preparation, forty grains to the ounce, was used; but afterwards, on account of the expense, the powdered hydrochlorate of morphia was procured, and he made his own solution, and even this has cost him as much as 9s. and 10s. a week. The syringe used was a small one of his own construction, and for the full dose five injections were required, which were always taken night and morning, and two or three times during the day. When he gave himself the injections, the thigh was operated on; when his wife did it for him, the arm. During the whole course, he suffered more or less from ulcerations of the parts, and on two or three occasions he was seriously ill on account of this. He was not at all troubled with dreams, though in the earlier stages he used to start violently sometimes on dropping off to sleep, and have attacks of "horrors." On these occasions his wife used to awaken him promptly. His appetite and digestion did not seem to have been affected at all, but of late years he had found it necessary to take half a glass of spirits before breakfast, as otherwise he could not enjoy that meal. He indulged in alcohol in moder-

ation but never to excess, and, as a rule, smoked three-and-a-half ounces of tobacco a week. He did not suffer from pain of any sort, and his senses and sensibility were not affected. His two elder children, aged respectively twelve and ten, are quite healthy; but the third, aged six, exhibits most extreme rickety deformities, and the youngest, aged two, is a very strumous child, with incipient angular curvature of the spine. During the last ten years his wife has given birth to one child still-born, and has had several miscarriages.

Unfortunately the man himself, who died from fractured base of the skull a few weeks back, was not interrogated, and the above details have been obtained from his wife, who describes him as a robust and well-made man, about six feet in height, of a cheerful disposition, and a very good worker, not at any time given to fits of moroseness or apathy.

Although the man himself seems to have suffered wonderfully little, except in pocket on account of his excess, it is to be feared that the evil results are handed down to his children. E. C. K.

Bolton, Feb. 13th, 1888.

# Review.

"Travels in the Interior; or, the Wonderful Adventures of Luke and Belinda." By Luke Theophilus Courtney. Edited by a London Physician. With illustrations by Harry Furniss.

This admirable book, after the style of "Alice in Wonderland," is well worth perusal. It gives a most accurate description of the physiology of digestion, absorption, hearing, and breathing, and at the same time is extremely amusing. In it are recorded the incidents and adventures of a week's tour through the mouth, œsophagus, stomach, duodenum, a lacteal, a receptaculum chyli, the thoracic duct and a cutaneous vein, with flying visits to the middle ear and larynx. The heroes of this extraordinary journey are L. T. Courtney, who has just become a full-fledged M.R.C.S., his sister Belinda, who thirsts for knowledge and is duly instructed as to their environments by her brother, and his companion, who has been so unfortunate as to get spun at the College. After partaking of an expensive sweetmeat from Bagdad, these three are reduced to such pigmy dimensions that Luke, a six-footer, stands not more than $\frac{1}{50}$ inch in his boots. Subsequently they regain their right proportions by each eating a part of a white hair, and at the same time erupt from a small vesicle on their host's neck, to find, of course, that it has all been a dream. And that they should have so dreamed in unison is explained by the rejected aspirant for the College diploma by the fact that they had fallen asleep each touching the others. The best advice we can give to those who know physiology, and to those who are ignorant of the subject; to those who wish to be instructed and those who do not; and finally to those who care for amusement—is to read "Travels in the Interior."

# Sport.

## GUY'S HOSPITAL ROWING CLUB.

The Annual General Meeting will be held on Tuesday, March 6th, at 1.30 p.m., in the Surgical Class Room.

J. N. C. Davies-Colley, Esq., in the Chair. All men interested in rowing are urged to attend.

Business. Election of officers.
Statement of accounts.

## UNITED HOSPITALS ROWING CLUB.

A General Meeting of the United Hospital Rowing Club was held on February 27th, at King's College Hospital. Mr. R. Carleton-Jones in the Chair.

The following officers were elected:—

| | | | |
|---|---|---|---|
| Captain | ... | Mr. W. Grenfell | ... London. |
| Vice-Captain | | T. Case | ... Middlesex. |
| Secretary | ... | — Moulson | ... — |
| Treasurer | ... | Dr. S. M. Copeman | St. Thomas'. |

Hospitals represented.—St. Bartholomew's, Guy's, St. Thomas's, King's College, St. George's, Middlesex, St. Mary's.

The Treasurer presented his balance-sheet for the year 1887, and was able to show a balance in hand of £14 10s. He reported that arrangements had been made with Messrs. Thompson and Bowers, of the West London Boathouse, Putney, by which the U.H.R.C. obtain an additional room at the same rent as was paid for two rooms last year, and five hospitals gave notice that they wished to be tenants under the United. These were—Guy's, London, King's, St. Thomas's, St. Bartholomew's, and St. Mary's hoped that they would be able to join also.

The Secretary wished to receive the names of any men who would be willing to row in an eight or four, with a view of representing the United Hospitals at some of the various regattas.

The date of the International Hospital Race for 1888 was fixed for the week commencing on the 10th of June.

## FOOTBALL.

Guy's Hospital *v.* Sydenham played at Sydenham on Saturday, February 18th, and resulted in an easy win for us by five tries to nil. The ground was in a dreadful condition, and the play was necessarily of an uninteresting character. Prime procured three out of the five points, the other two being got by Barr and Bryant. The ball was so heavily coated with mud, that Prime could certainly not be blamed for failing in every attempt at place kicking. It would be impossible to give a detailed account of the game, as everybody was slipping about in marvellous fashion, and the play on both sides was of a more amusing than of a high-class order.

Sides.—*Guy's Hospital*—T. B. Yorath (back), H. L. Evans, C. J. Prime, H. Barr (three-quarter backs), H. G. Steele, J. H. Bryant (half-backs), A. Allport (Capt.), H. B. Marriott, T. O. Raw, H. B. Rygate, N. Instone, W. G. Rogers, W. C. Swayne, H. Wilks, M. Jenkins (forwards).

*Sydenham*—F. Wilson (back), W. W. Higgs (Capt.), G. R. Forshaw, E. Rouillard (three-quarter backs), A. C. Smith, H. W. Penny (half-backs), J. Wood, S. Carpenter, A. R. Barfleet, W. J. Symonds, J. Brown, G. H. Holt, A. H. Higgs, F. D. Pattison, H. W. Stannard (forwards).

*Referee*—N. Spurling (Blackheath).

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*To the Sporting Editor of* Guy's Hospital Gazette.

U. H. R. C.

Dear Sir,—I should like, through the medium of the Gazette, to call the attention of Rowing men to the following decision of the U. H. R. C. at the last general meeting:—It was desirous to form a crew to represent the United Hospitals at some of the public regattas. Those desirous of rowing are requested to give in their names to A. G. W. Bowen, A. Allport, or myself, to be forwarded to the Secretary, in order that he may make arrangements for trying them. I may mention, at the same time, that the subscriptions to the United Hospitals Rowing Club is, for men belonging to their Hospital Rowing Club, 5s.. or men at hospitals with no Rowing Club, or for men not members of their Hospital Rowing Club, £1 1s.

The colours of the United Hospitals are dark red blazer with white silk edge, and crest on pocket, and dark red cap with crest.

Yours faithfully,

W. C. SWAYNE.

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## CRICKET.

A Meeting of the United Hospitals' Cricket Club was held at University College Hospital, on Monday, February 13th. Mr. Umney, of St. Thomas', was elected Hon. Sec., while Mr. Standring still holds the Treasurership.

The U. H. C. C. are to play the following foreign matches:—

| | | | |
|---|---|---|---|
| May 14th | ... | ... | Guy's. |
| May 16th | ... | ... | Bickley. |
| May 30th | ... | ... | Richmond. |
| June 22nd | ... | ... | Crystal Palace. |
| July 3rd | ... | ... | Hampstead. |
| July 11th | ... | ... | Beckenham. |

Messrs. Scott, Umney, Hubbard, Hitchens, Faichnie and Tench, have been chosen to take charge of the various matches.

Mr. Heasman, of Barts, is to receive a presentation for his innings of 203 for the United v. Chiswick Park, as is also Mr. Corbyn, in recognition of his services as Hon. Sec. of the United for the last four years.

We have to pay £33 6s. 8d. for the Cup by the 1st of May.

## CRICKET CUP FUND.

Subscriptions have been received by the Sub-Committees of the Cricket Club, for the Cricket Cup Fund, from the following gentlemen;—

| | |
|---|---|
| Mr. Brailey | Mr. Symonds |
| ,, Dunn | ,, Targett |
| ,, Howse | " S. Wacher |
| ,, Lane | Dr. Edward Penney |
| Dr. Perry | Dr. Shaw Mr. R. J. Rymer |
| Messrs. E. B. Landon | Messrs. R. T. Wallace |
| C. Spurrell | R. M. H. Randell |
| T. S. Jackson | A. C Elliman |
| C. J. Girling | F. Vicars |
| G. Sichel | C. Sutton |
| C. Pollock | G. F. Jones |
| J. H. Bryant | H. P. O. Manning |
| A. Reeves | A. H. Meadows |
| J. Pollock | W. D. MacDonald |
| C. M. Hitching | J. Bates |
| J. J. Brown | P. Osborne |
| W. A. Haslam | F. Colclough |
| F. B. Bush | T. D. Manning |
| F. Cresswell | W. Wingate |
| L. E. James | A. Shillitoe |
| S. Infield | H. L. Evans |
| L. Donaldson | W. G. Thistle |
| V. H. Barr | E. W. Du Buisson |
| H. Wilks | W. E. Kelbe |
| J. H. Bustead | F. D. Lumley |
| E. T. Cleeve | H. R. Statter |
| H. J. Bourne | J. Bampfylde |
| E. J. Desprez | E. F. Gardner |
| R. L. Wason | E. S. Worts |
| W. G. Thorpe | J. Muncaster |
| A. Bowen | W. S. Brown |
| P. Smart | J. Jewell |
| H. J. Wales | C. Rake |
| F. Hazell | N. Instone |
| R. W. Rouw | M. Buchanan |
| A. H. Card | W. Fisher |
| J. Emmett | T. S. Stevens |
| H. J. Campbell | C. G. Roberts |
| X. Cornish | J. M. Gill |
| E. M. Dobinson | S. W. M'Ilwaine |
| D. W. Samways | J. Fawcett |
| H. E. Sharman | B. Whyte |
| A. Allport | P. P. Pendlebury |
| T. Keffenheim | H. Joslen |
| L. Pratt | P. Paget |
| A. D. Fripp | R. H. Brabant |
| G. B. Smith | J. Aymard |
| W. G. Rogers | R. E. Williams |
| W. C. Swayne | T. S. Coombe |
| G. H. S. Daniell | A. D. Meares |
| R. Thompson | F. A. Collington |
| A. E. Kelsey | J. D. Cruikshank |
| F. K. Holman | F. W. Hall (£12 7 6) |
| A. E. Norburn | |

The Rooms (£1)—The total collected amounting to £21 3s. 6d.

Guy's Hospital Gazette,

*MARCH 17, 1888.*

# Pathological Notes.

## LIPO-SARCOMA.

The following case, of which short notes are given, is of pathological interest, on account of the association of fatty tissue with a sarcomatous tumour.

Alice C——, æt. 55, was admitted to the Bolton Infirmary, under Dr Patrick, on September 8th, 1887, suffering from a large tumour on the upper, anterior, and outer surface of the left thigh. She first noticed a small lump over the great trochanter five or six years before; this has not increased much in size since. Two years or so later another somewhat similar lump was observed lower down on the same thigh; this one, too, remained stationary for some time, but commenced to grow rapidly and become painful about three months before admission.

The tumour is described, on September 8th, as "large, tense, round, and fluctuating, freely moveable, and not attached to the bone, with the skin on its surface glistening, and the superficial veins very prominent." On incising it, about a pint and and a half of reddish-brown fluid escaped, and some masses of fatty tissue were removed from the cavity, the walls of which were thick; these were removed as far as possible, and found to be composed of spindle-celled sarcoma tissue. At the same time, the smaller tumour over the trochanter was excised, and proved to be a lipoma. A month later some "suspicious-looking tissue" was removed from the site of the larger growth, and the wound did well for five or six weeks, when the edges are reported to have been thick and swollen—especially the anterior, which formed a rounded tumour. After this the growth continued to increase and slough.

The patient refused amputation of the limb, and the Surgeons did not advise further operative interference with the tumour, as the femoral vessels appeared to be involved. She therefore continued, with a large sloughing sore, gradually to become weaker, and died from septic pneumonia on March 6th.

*Post-mortem.*—The tumour was found to be entirely outside the deep fascia, and presented the usual firm, whitish appearance of a spindle-celled sarcoma. No secondary growths were found in the body, and the femoral artery was quite free.

Did the lower of the two growths—which, from the history of the case, was, presumedly, a lipoma—take on a sarcomatous character? Or, did the lipoma act as an irritant, and determine the position of a sarcoma, as the irritation of a pipe may determine the position of an epithelioma? It seems hardly likely that the growth, to begin with, was a sarcoma, for it is said to have remained in *statu quo* for at least two years, and to have caused no inconvenience; and even had it been a sarcoma, with fatty degeneration, one would not expect to have found in it "masses of fatty tissue." And if the case really originated in a lipoma, since these do not break down and suppurate, it must have taken on some further action before the large abscess was formed.

The most likely explanation seems to be, that the tumour was a Lipo-Sarcoma, and probably a simple lipoma to start with. Erichsen says: "In *very rare* cases, some of the cells of a sarcoma develop into true fat cells"; but he seems to be of opinion that fat cells never develop into sarcoma cells, for he further states that "Lipomata do not undergo any ulterior change of structure."

E. C. KINGSFORD.

Bolton, March 12th, 1888.

# Physical Society.

## SOME REMARKS ON SCARLET FEVER.

(Read before the Guy's Physical Society, March 1, 1888.)

It is not my intention to give a set description of scarlet fever, nor to enter into a consecutive history of its course and symptoms; but rather to take up certain points relating to the disease which are not sufficiently touched upon in those text-books of medicine most read by students, but which are of great interest practically as well as theoretically.

First, as regards the incubation period, concerning which writers vary—a proof that it is not an easy matter to obtain data which can be relied upon, from which to fix this period with anything like accuracy. Thomas, in Ziemssen's "Cyclopædia," puts it at seven days; but the particular instances he gives in which the evidence seems most trustworthy show a shorter duration. Gee, in his well known and able article in Reynolds' "System of Medicine," does not attempt to fix the period; he says that "probably seven days are rarely exceeded." In Quain's "Dictionary" Squire writes: "The period of incubation is a short one, not more than three to five days; it may be as short as three hours; it may possibly extend to seven days. The longest clear interval from a single definite exposure to sickening has been four and a half days." In Fagge's work on medicine, in the chapter on contagion, the incubation period of scarlet fever is incidentally mentioned as being "ordinarily of nearly a week." My senior colleague at the London Fever Hospital, Dr. Hopwood, after considerable experience, believes that the incubation is usually three days; sometimes shorter, much more rarely longer; and for the following reason: Formerly the ambulance used at this hospital for fetching patients was not disinfected after each time of use, as it is at present; consequently, on some occasions, persons, who though said to be suffering from scarlet fever were really not so affected, were carried for some distance in a vehicle in which scarlet fever cases had previously been conveyed, and were exposed for some time to the scarlet fever poison. On their arrival at the hospital such persons, being found not to have scarlet fever, were isolated; but in spite of this measure some of them after a certain period fell ill of the disease; this period was about three days, and was that of incubation; it being almost certain from the uniform length of the period that these patients caught the fever from the infected ambulance.

It is of practical importance to know that the incubation period is short, because a scarlet fever patient may be removed before he has time to do much mischief in the way of spreading the disease, if he be removed or isolated directly he shows symptoms of illness; for a person may convey the fever to another during this stage; besides, people not infrequently say to one, "I was in company with so-and-so, who had scarlet fever; I may have caught it; when can you say that I am safe?" The incubation period of measles is seven to nine days, of German measles twelve days, of small-pox twelve or thirteen days. So that in all these cases a good deal of mischief may be done before the malady declares itself.

The time of the commencement of the invasion period—that is to say, the time the patient begins to feel ill—can very often be exactly fixed; the first symptoms being in most cases sore throat, pain below the angles of the jaw, headache and vomiting, a rise of temperature, a very frequent pulse, and occasionally (especially in children) such nervous symptoms as drowsiness, delirium at night, and sometimes convulsions or coma. The glands in the neck become enlarged. But in mild cases—in fact, in some cases which afterwards turn out to be severe—there may be very slight symptoms of invasion, the patient not noticing anything particular until the appearance of the rash. The medical man is often called to see a patient in this stage of the disease, and if the rash has not yet come out, he must be in great doubt whether to diagnose a specific fever or not. In fact, he cannot definitely decide; though in the time of an epidemic, suspicion may almost amount to certainty. The appearance of the rash alone can clear up the diagnosis.

During an epidemic of scarlet fever, a patient with sore throat and other symptoms should be isolated; for, if the complaint be scarlet fever, the rash soon comes out, as a rule, in twelve to thirty hours. I am sure you cannot diagnose that a patient complaining of sore throat is going to have scarlet fever from the morbid aspect of the fauces alone, not even if there is an accompanying high temperature and frequent pulse; for, in scarlet fever, the throat affection varies from mere redness, with little or no swelling, to great enlargement of the tonsils, with œdema and redness of the soft palate and upper part of the pharynx; and sometimes there is a membranous formation that can hardly be distinguished from diphtheria. I have also seen vesicles on the uvula and back of the pharynx, these parts being at the same time red, and slightly œdematous. Or else the follicles of the tonsils become swollen, and give a granular appearance to those organs. There is often a large amount of secretion on the tonsils and fauces generally, and sometimes this has just the look of a membrane, or of an ulcer. Membrane may indeed be present as in diphtheria; but in the cases I have seen, it was not so firm and tough as the diphtheritic membrane, and one could detach it more easily, and without leaving an ulcerated and bleeding surface underneath. And here I should like to draw your attention to the fact that scarlet fever may, even at an early stage, be complicated with diphtheria, though rarely. Anything like severe ulceration of the tonsils and neighbouring parts occurs, in most cases, later on in the disease.

The rash is the next feature which engages our attention. It is important because of its diagnostic value. In most cases its appearance is of such a nature as to

leave no doubt whatever as to the specific character of the fever. It begins on the upper part of the chest and adjacent region of the neck, and consists of small, bright red points, fading away at their edges to join one another, so that there is no normal skin between. At first, and in cases where it is not well marked, it forms, so to speak, irregular and scattered patches on the skin, which is slightly reddened in between. Unless universal, the rash fades away gradually into the surrounding skin, It disappears on pressure, returning very quickly. The small red points may be closer in places than in others. *Urticaria may be present also. On the forearms and* legs the rash may be more discrete and papular. Generally the rash appears on these parts after it has come out on the chest; but it may come out all over the trunk, head, and limbs at once. It is rarely found on the face; when it is, according to Thomas, it appears only on the forehead and temples. I have seen it, in severe cases, nearly all over the face. But more often the face is only very much flushed (except for a space round the mouth), and, at a short distance, this looks like rash; but a closer inspection will show that the redness is quite uniform, and without the fine red points. It must be noted, that the rash may first appear on some other part of the body than the chest and neck—such as the leg—and, moreover, this may be its only appearance. In cases of this nature, however, it is possible that the rash first appeared on the chest, and was unnoticed. In one little girl, on admission into the Hospital, the rash was only to be seen on the lower part of the abdomen; so that, though in a suspected case of scarlet fever one looks first at the chest, yet, if one fails to find any rash there, the remaining surface of the body must be examined. In a man whom I saw one day last September in the surgery at Guy's, the rash was most severe on the arms and forearms and the lower part of the trunk, being of a purple hue and even hæmorrhagic at the bends of the elbows; yet, on the chest and neck, it was very slight, and might easily have been overlooked.

In examining a case in which the rash is but slightly to be seen on the chest, it is well to examine the flexor surfaces of the joints, especially of the elbow, for in these positions the rash is often well-marked along the creases in the skin, giving rise to an appearance of red lines. When the rash is severe there is generally more or less tumefaction of the skin, so that the face and hands may be swollen and puffy. I have seen one case of undoubted scarlet fever in which the rash was remarkably papular and discrete. The patient, a young man, had been sent to the London Fever Hospital as a case of measles; he had a slight sore throat, no coryza or bronchitis, and the face was quite free from rash; but the chest and back, and, to a lesser degree, the extremities, were covered with a bright red papular eruption, the papules mostly discrete but with red skin between, and not arranged in a crescentic form at all. The patient was kept isolated to make certain of the nature of the affection; desquamation followed as in an ordinary case of scarlet fever.

Miliaria are frequently present when the rash is out. The rash lasts from five to ten days. When it has once appeared it may recede and then come out again. Desquamation often commences before the eruption has disappeared; it commonly begins on the neck and chest, and takes place all over the body, even where there has been little or no rash, as for instance on the face. There may be no rash at all and yet desquamation, so that in a few cases peeling has a diagnostic value. One of the nurses at the London Fever Hospital, who had never before had scarlet fever, was taken ill with a bad sore throat and a high temperature; my colleague (under whose care she was) accordingly isolated her, being doubtful whether she had scarlet fever or a sore throat due to some other cause. The temperature remained high for some days; but gradually the patient got better, and marked desquamation followed; yet no rash ever appeared at any time during the illness, though careful observation was made.

The desquamation may be of all degrees, from a fine powdering up to large masses and flakes of epidermis; the severity seems to be in proportion to the fever and rash, but by no means always. Desquamation may not begin until two or three weeks have elapsed; but it is wrong to suppose (as do some) that this is the usual course. It begins very soon after the rash disappears, and often while the rash is still present; not unfrequently it takes place more than once. Sometimes there is no desquamation, but this only occurs in mild cases. There is very slight desquamation after measles and rubeolæ (German measles); but in these two diseases it is never so marked as in an average case of scarlet fever. The only acute specific fever with rash that, as far as I know, gives rise to desquamation at all comparable to that of scarlet fever, is erysipelas. The peeling of scarlet fever does not give rise to ulceration of the skin; the most one sees is a slight cracking, like that which often occurs on the backs of our hands in cold weather. I mention this because very recently a woman was sent up to the London Fever Hospital with a medical man's certificate, stating that she was in the desquamation stage of scarlet fever; and on examination it was found that she was suffering from acute general exfoliative dermatitis, with, in places, pretty extensive weeping surfaces.

Regarding the rash, the difficulty of course is in a case where it is very slight to distinguish it from rashes due to other causes, as measles (morbilli), German measles (rubeolæ), typhus, and various erythemata. Quite apart from other symptoms, of different nature in the different fevers, and concerning which I shall not speak, since they are all set forth in the books, the rash of scarlet fever is not so often mistaken for measles, or *vice versa*, as is that of German measles for either of the two former. The rash of measles is always on the face, that of scarlet fever rarely, unless the rash is universal. After the rash has been out for some time in scarlet fever, when it is severe, and also when the circulation is obstructed or, as in grave cases, feeble, it may assume a purplish and mottled appearance. But this is more

likely to be mistaken for typhus than measles, as it wants the papular character. The typhus rash appears first on the back of the wrists, the borders of the axillæ and the epigastrium; more rarely (according to Buchanan) it appears on the face and neck; but it may occur in these situations so copiously as to be mistaken for measles. One would then have to be guided by other symptoms. The typhus rash consists partly of maculæ, partly of a mottling which looks as if it were beneath the skin. The rash of German measles consists of spots varying in size from a pin's head to a lentil, but generally uniform and of a size midway between these two extremes; always appearing first on the face and neck, leaving a space, however, round the mouth, which is pale, and is known as the "oral ring;" this appearance is sometimes seen in scarlet fever, when the blush on the cheeks does not extend to the skin around the mouth. The colour of the German measles rash is of a paler hue than that of scarlet fever; it may be mistaken for the latter affection when the spots are of the smallest size and also of a brighter colour than usual. Generally, however, the rash is mistaken for measles (morbilli); but the spots are not so much raised, they do not have the purplish hue of measles, nor is their arrangement in regard to one another crescentic. They also run together and form patches and diffused red areas. But in some cases it is impossible from the rash alone to make a diagnosis between rubeolæ and morbilli.

It is well to bear in mind, especially during a smallpox epidemic, that the initial stage of variola is sometimes accompanied by a rash which has a scarlatinal appearance; but it is confined to the lower part of the abdomen and the upper and inner parts of the thighs. Cholera is occasionally attended (according to writers on that disease) by a scarlatina-like rash, which is followed by desquamation. As regards eruptions due to other causes and likely to be mistaken for those of the specific fevers, the copaiba rash has perhaps given rise to the more numerous diagnostic errors. The circumstances which lead to the administration of copaiba are not infrequently attended with sore throat and pyrexia. Fagge mentions a case in which a ward clerk was very much taken in; for on examining the urine by the nitric acid test there was a copious precipitate; accordingly he diagnosed rather hastily scarlet fever with albuminuria. But though such cases are sometimes through want of careful examination mistaken for scarlet fever, Dr. Hopwood informs me that he has much more frequently seen them sent up to the London Fever Hospital as cases of measles. The copaiba rash is papular, but it has a brighter hue and a more irregular distribution than that of measles.

Before leaving the subject of rashes, I should like to mention that the eruption of measles leaves behind a copper-coloured mottling, which often lasts more than a fortnight. It is very like, and therefore may be mistaken for, the mottling left by a syphilitic roseola.

E. W. GOODALL, M.D.

*(To be continued).*

# NOTES ON PATHOLOGY.

By Dr. R. E. Carrington.

*(Continued.)*

## KIDNEY.

### Tubercular Kidney.

Two forms—(1) Miliary tuberculosis, always secondary.
(2) Primary tuberculosis.

1. *Miliary tuberculosis* is always secondary, and is part of a general diffusion of tubercle. It seems that the kidney in a case of tuberculosis follows the lung as regards frequency. This disease, which consists in the scattering of small round yellow or grey miliary tubercles, chiefly in the cortex, has no clinical significance.

2. *Tubercular disease* may be a primary affection. The first deposit of tubercle takes place at the apices of the Malpighian pyramids, or between the cortex and medulla. Very quickly the pelvis is involved, and tubercular pyelitis may precede the renal affection. The tubercle is deposited very quickly, and becomes yellow and caseous, and softens. The tubercular disease of the pelvis leads to thickening and swelling of the mucous membrane and obliteration of the ureter. In consequence of these two factors—

i. The pelvis and calices dilate and the renal substance becomes more or less flattened out. The mucous membrane of the pelvis of the kidney becomes converted into the thick ($\frac{1}{4}$-1in.) layer of quite structureless material which under the microscope is resolved into the fatty and granular *débris* of degenerated tubercle.

ii. The tubercular masses soften down and form vomicæ. The sum total of these two processes (*i.e.*, dilatation and tubercular deposit and cavitation) is that the kidney becomes more or less enlarged, the pelvis and calices dilated and coated with a thick layer of yellow caseous material: the kidney containing cavities of various sizes, the walls of which are coated with the same yellow matter. The extreme result is an organ riddled by cavities, in part arising from dilated calices, in part from softened tubercle. These cavities are lined by yellow, caseous, softened, tubercular matter, and according to the stage of the disease more or less renal substance is left. This disease is often a primary one of the kidney. It is unilateral at first, but sooner or later affects both organs, and finally sets up in most cases general tuberculosis.

The tubercular disease passes down the ureter, and in some cases involves the mucous membrane of the bladder. Sometimes it passes along the vas deferens to the epididymis by direct continuity. But sometimes in primary tubercular renal disease, deposit takes place in the epididymis concurrently. In extreme cases the tubercular disease advances along the urethra, and the mucous membrane undergoes the same thickening and caseous degeneration, so that in rare cases symptoms of stricture of the urethra may result. In the female the

same caseous change takes place in the mucous membrane of the Fallopian tubes and uterus. This condition is rare, but not extremely so. The parts affected are found to be lined by a layer, more or less thick, of yellow structureless material which under the microscope is resolved into granules and fat cells.

### Hydronephrosis.

Results from obstruction to the outflow of urine in some parts of the urinary passages. This obstruction is not always demonstrable. It may be inferred in some such cases that the calculus, the original cause, has passed down the passages or become dissolved, or perhaps undergone spontaneous disruption (Ord).

*Causation.*

1. Impaction of calculus.

2. Obstruction in the ureter, in the bladder, or in the urethra. *e.g.*, stricture of urethra from ulceration set up by calculus, enlarged prostate, stricture of urethra; and in female pelvic cellulitis, ovarian and other tumours, and certain causes have been described by Roberts and others which are more or less doubtful, viz.:—

(1). Congenital. The strong point here is the occasional association with other congenital defects. Hare-lip, &c.

(2). Too great obliquity of the junction of the ureter with the pelvis; urine collects in the pelvis and presses the fold down like a valve. When the distension becomes great it acts on the opposite wall of the ureter, and relieves the pressure by a copious flow of urine. The continuance of these processes for a long time causes hydronephrosis.

(3). Abnormal distribution of the renal artery. A branch coming off and passing across the ureter enters the substance of the kidney lower down. This is supposed to have caused a certain amount of obstruction which would of course increase as the pelvis became dilated.

(4). In a case described by Dr. Hare, there was a large hydronephrosis, and the upper part of the ureter was twisted in a spiral, the coils of which were adherent. When the coils were separated the urine ran readily through the ureter.

Whatever the cause of obstruction, the first effect is dilatation of the pelvis, then of the calices; then the pressure begins to operate on the renal substance, and the first thing noticed is flattening of the papillæ. If the pressure increases, first the pyramids, then the cortex, become flattened out, and the final result is a large sac either without any remnant of renal structure at all, or only a small portion at one point. The sac is often more or less divided up on account of the greater or less persistence of the calices. Of course all stages are met with. The renal changes that take place in the kidney substance are exactly the same as take place in granular kidney, *i.e.*, there is an interstitial nephritis, thickening of the connective tissue, formation of cysts, atrophy of Malpighian bodies, and thickening of arteries. This is Fagge's "Consecutive Bright's Disease."

*The fluid* of hydronephrosis is clear, pale yellow, and contains small amounts of the urinary constituents (urea, uric acid, and salts). Sometimes it consists of pus, when the condition is known as *Pyonephrosis*. The presence or absence of pus seems in many cases determined by the acuteness of the obstruction. The slow intermittent and gradually-increasing obstruction results in hydronephrosis; a sudden and complete one as by a calculus results in pyonephrosis.

Scrofulous kidney sometimes produces pyonephrosis.

*(To be continued.)*

## CLOTHING.*

The subject of clothing is one which, whilst it can hardly ever be entirely out of our minds, seldom, I think, receives from us the attention to which its importance entitles it.

In cold weather we perhaps tell our patients to put on more and thicker garments, and in hot weather we leave them to wear few and thinner ones, according to their own inclinations; but the principles on which depend the characters of good and bad clothing, and which should guide us in the advice we have constant opportunities of giving, are by most of us, I fear, little considered.

Passing over the history of clothing—the moral, æsthetic, and many other interesting aspects in which so wide a subject must be viewed, each in its time and place—I take it, that from the point of view of the consideration of health the main objects of clothing are—

1st. To afford Protection from injurious outside influences, such as mechanical violence, and, especially, extremes of weather, in the way of heat, light, cold and wet; and

2nd. To preserve the natural Warmth of the body.

And for clothing to be good it is first of all necessary that it should efficiently accomplish these two main objects, with special reference to the age, sex, and occupation of the individual wearer and to the nature of the climate in which he lives; and, in the second place, that it should do so (1) without *injurious effects* upon the body, (2) without interference with the proper *movements* of any part, (3) without special *danger* (such as that due to inflammability of material), (4) without special *inconvenience* (such as may arise from the great weight or bulk of garments), and also (5) without needless interference with the social distinctions of *class and office*, and withal (6) without offence to *modesty and good taste*.

We must all have met with cases in which insufficient clothing has exposed a patient to injury—whether cut feet or scalded hands, from mechanical or physical violence; sunstroke, from heat; impairment of sight, from the glare of sun or snow; chilblain or frostbite, from cold; or catarrhal inflammations, from wet.

* A Paper read before the Sheffield Medico-Chirurgical Society, 1st March, 1888, by R. J. Pye-Smith, F.R.C.S.

But a lack of the due protective influence of clothing is probably less commonly the cause of disease than is its failure to maintain the natural warmth of the body, by its inadequately restraining the loss of heat from the skin by radiation, by conduction, and especially by evaporation; and chills so suffered are no doubt among the commonest sources of disease in this country—from a cold to pneumonia, from a stiff neck to acute rheumatism.

How often, again, have we all observed the injurious effects produced upon the body by tight stays, tight boots and socks, tight garters and hard hats; and the interference with its proper movements caused by high-heeled boots, tight sleeves, stiff collars, and, again, tight stays. Who of us has not witnessed the fatal results of the dangers arising from inflammable clothing, whether in the cottage or in the ball-room; or from superfluities of dress worn in the workshop among revolving bands and cog-wheels? The special inconveniences of dress have become familiar to us in the weight of the soldier's head-gear and in the bulk of the lady's crinoline, her train and her tall hat. Whatever may be thought of the advantages or disadvantages of class and official distinctions in dress, it is obvious that the doctor, for instance, should not habitually clothe himself in the garb of the butcher or the undertaker; and, as to modesty and good taste, we shall most of us agree that his costume should be neither that of the fop nor that of the sloven.

Let us, then, consider the properties which garments, and the fabrics from which they are made, ought to possess, in order that they may well fulfil the purposes and conditions to which I have referred. And first, with regard to Fabrics, these should be: (1) *Bad conductors of heat.* This is necessary, to enable them to retain the natural warmth of the body. It is also very advantageous in affording protection from extreme heat—such as the direct rays of a summer sun, the blaze of the furnace, and the scalding action of hot steam or water. (2) *Strong*, in order to give efficient protection from violence—as in pushing through brushwood, or in walking over a newly-mended road. (3) *Light in weight*, so that force need not be unnecessarily expended in their carriage on the person. They should be also (4) *Soft* enough to be comfortable; (5) *Flexible* enough to permit free movement of the limbs, &c.; (6) *Elastic* enough to retain their shape; (7) *Smooth* enough to be unirritating to the skin, yet (8) *Rough* enough to gently stimulate its blood supply by friction. They should be (9) *Porous* enough to facilitate ventilation and the transmission of sweat, and (10) *Hygroscopic* enough to absorb sweat with rapidity; whilst, on the other hand, some at least of the fabrics used for outer garments should be (11) Sufficiently *impervious* to both air and water to keep off wind and rain. It is further desirable that the fabrics, especially such as are used for under garments, should be (12) *Washable* with ease, in order to insure cleanliness, and that they should be themselves (13) *Cleansing* to the skin with which they come in contact. Again, they should be, for economic reasons, (14) *Durable*, (15) *Cheap*, and (16) *Susceptible of easy repair.* As regards dyes, they should be (17) *Coloured* in accordance with climatic as well as æsthetic considerations, the direct rays of the sun being felt very much more under a dark than under a light-coloured coat or hat, and (18) *Non-poisonous* either to the skin or to the system generally. Hence, as a rule, natural colours and fast colours are preferable to artificial and fading dyes. They should, moreover, be (19) *Odourless*, and, as far as possible, (20) *Non-absorbent of odours*, in order that they may be inoffensive; (21) *Unshrinkable* by the influence of wet or heat, lest the garments made from them soon cease to fit well, after washing or exposure to rain; and, lastly, all dress fabrics ought to be (22) *Non-inflammable*, and, until this character can be given more easily than it can at present to cotton materials generally, we shall continue to hear frequently of children and young ladies being accidentally burnt to death.

Turning, now, more rapidly to the Garments, (1) they should be made from *Materials* possessed of as many as possible of the qualities I have just enumerated, particularly, of course, of the more important qualities, and specially adapted in each case to the particular garment in whose construction the material is to be used. (2) In *shape and appearance* they should be graceful, and adapted to the special purpose of the garment, and to the age, sex, rank and occupation of the wearer. (3) In *size and fit* they should be adapted to the individual; not tight, so as to compress the regions they cover, nor fitted to one position only, so as to prevent free movements; nor, on the other hand, should they be so loose as to be cumbrous, or as to allow chilling draughts to blow beneath them. (4) In *number* they should be sufficient for due warmth (this will, of course, depend a good deal upon their thickness, as well as upon the character of their fabrics as good or bad conductors of heat), and sufficient for convenience in the separate clothing of certain regions, as the head, hands, and feet; whilst, on the other hand, they should be few enough to avoid the inconvenience of having to put on very numerous articles of dress. And, lastly, (5) as regards *convenience*, their modes of fastening should be simple, and capable of easy and rapid adjustment; and they should serve well, by means of pockets, for the carriage of such impedimenta as their wearer may require to have about him. There are classes of society which do not see the need of carrying even a pocket-handkerchief (and it would be well if none of them thought a pocket revolver of more importance); but a doctor at least must carry some of his tools with him, and, whilst it is better to carry a midwifery-bag in the hand than to have a craniotomy-forceps sticking out of one's coat-tail pocket, it is a great convenience to have suitable pockets for stethescope, thermometer, and pocket instrument-case, not to mention opthalmoscope, prescription-book, watch, purse, and latch-key.

*(To be continued.)*

# Passim.

We understand that the General Court of Governors of Guy's Hospital has sanctioned the erection of a Residential Medical College upon the site of the old Maze Pond Chapel. It is proposed that the sum required for the purpose, estimated at £20,000, should be raised by private subscription among the Governors and Medical Staff, the Lecturers and Teachers in the Medical School, and their friends.

As the last meeting of the Physical Society has been held, we may consider its present position and future prospects. As regards attendance, the average has been considerably better than that of the previous winter, owing partly, we imagine, to a greater interest in the work of the Society, but more probably perhaps to the facilities afforded by our Club, of obtaining a late meal. Still we think that the attendance might be materially improved and the interest of the meetings considerably increased by the adoption of certain changes. In the first place, there seems to be no doubt in any one's mind that the change that took place last winter from Saturday to Thursday was a mistake. This measure was adopted to enable those who played football to attend, it being alleged that the afternoon's fatigue did not conduce to an appreciation of the evening's oratory. This involves the assumption that the football man wishes to and does usually attend the Physical debate. We fear the majority do not. On the other hand, the non-athletic man complains that the Thursday's attendance involves the giving up of a good evening's work, whilst he is only too ready to while away a couple of hours on Saturday in the combined recreation and instruction afforded by the Physical. We think therefore that a return to Saturday should be adopted. Another alteration we would suggest, and one which is more radical in its tendencies, is the devotion of every alternate evening to the consideration of Clinical Material. Previous experience has shown that there is a better attendance on such evenings, and that the dreary waits, so liable to occur ordinarily in the course of debate, are pleasantly conspicuous by their absence. The success of this scheme would depend on the cordial co-operation and support of the House Physicians, House Surgeons, Dressers, and Clinicals, for the time being. A list of the probable cases to be shown should be published at least two days beforehand, as is the case in all Clinical Societies, in order to insure an interesting debate. It is probable that these proposals will shortly be brought before a meeting of the Presidents.

At last Guy's is to have a Physiological Laboratory. Though late, we are not last. There are still Hospitals in London where such an institution does not exist. A wooden fence at present marks out the site of the future Laboratory, which is to be built in the corner of the Park behind the present Pathological Museum. A good north light is available, of which, we trust, full use will be made, as it is impossible to do good microscopical work with a top-light alone, the failure of which, as a means of illumination, is well seen in the present class rooms. We hope that facilities will be afforded to Senior Students who wish to avail themselves of the Laboratory for purposes of original research. We look forward to the time when work done in the Physiological Laboratory at Guy's will form an important supplement to the G. H. Reports.

In a list of J. & A. Churchill's forthcoming books we are pleased to note the following;—"A Manual of the Practice of Medicine," by Frederick Taylor. This we hear is a small book intended for the use of men who are beginning the study of Medicine. It ought to supply a much-felt want.

"The Operations of Surgery," by Mr. W. H. A. Jacobson. This book, according to the prospectus, is intended especially for those who have recently been appointed to the Surgical Staff of a Hospital. All those who have attended Mr. Jacobson's valuable classes on Operative Surgery, will look forward with eagerness to the appearance of this book. It ought to be just the book needed. There are a host of works on the subject, which are mostly useless for any practical purpose, all necessary details being as a rule carefully avoided, from the gaudy and antiquated work of Heath downwards.

We have seen lately a New Edition of the late Dr. Carrington's "Manual of Dissections." This has been carefully revised by Mr. W. A. Lane, and its value considerably augmented by numerous additions.

We give further on, in our columns, the Match List of the Cricket Club for the ensuing season. It seems a very strong one, better even than last year; but Guy's Men will have to "buckle to" if they mean to gain possession of the Hospital Cup for the fifth time in succession, as the First XI. has lost during the past two years some very prominent members, and there are only six of last Session's Cup Team still available.

We notice that the Second XI., which came into existence last year, has increased its number of matches, and also that an experiment, which was a failure when last attempted, is again to be tried, namely, an opening match. Under the present circumstances it is necessary that all fresh men who can, should play in this, for we trust there will be plenty of competition for the five vacancies; and we hear from the authorities that be, that some good bowlers are sadly needed.

We hear, at the last moment before going to press, that Mr. Bryant, the Senior Surgeon to the Hospital, having reached the limit of age at which Staff Appointments are held, has sent in his resignation. This, we understand, has been accepted by the Governors. The news of this loss will be received, we are certain, by all our readers with sincere regret.

## OUR ILLUSTRATION.

About a month ago we noticed the departure of Dr. Albert Martin for Australia. Since then many of our subscribers have asked that his portrait should be given in the Gazette. We have yielded to their demands, and at the same time think that some slight mention of his past triumphs will not be out of place. He took the first prize in the Hospital examinations of his first, second and fourth years; the Michael Harris and Beaney prizes; and the Treasurer's Gold Medal for Medicine. He is M.D. London and M.R.C.P. He held the appointments of House Physician and Resident Obstetric, in addition to all those connected with the various special branches. On leaving Guy's he filled the post of Resident Medical Officer at the Evelina. We must not forget to mention, in addition, his services to our prestige in the athletic world. He played in the Rugby Cup team in his first year and for the three succeeding seasons, and was our Captain in 1883-84.

## Correspondence.

*To the Editor of* Guy's Hospital Gazette.

### ANÆSTHETICS.

How far, Mr. Editor, can your memory carry you back towards your nativity? Can you remember when you were three years old? Well, Mea cara sposa can remember when she was christened, and then she was only three years. When we arch our eyebrows, she, good soul, insists that it is so, and that she can remember she made a curtsey to the clergyman, and was told she was a very forward child. I am inclined to think there must be some truth in this. For myself, I have a glimmer of Noah's Ark in my crib, on recovery from typhoid fever, when I was about 4½. But then I don't assert I remember straight away to that remote period. It's a long time; over half-a-century since. And I have a shrewd suspicion that it is a memory of a memory, or rather of memories; and so, I suspect, is that of the wife's, if she attentively analyzed her mind. There was one occurrence at Guy's which I never did pretend to remember; for the best of reasons, because I never saw it; it was years before I came to Guy's. I have though the firmest belief in it. This was the séance of Laughing Gas. It was a stout tradition that many students inhaled it out of large bladders, upon which many took advantage of the opportunity to run a kind of muck, butting, curiously enough, the more objectionable of the authorities. This performance took place at the back of Hospital, near the back steps. But at that time there was no green sward behind "Clinical," nor Hunt's house. Clinical was then devoted to Lunatics. I remember it so. You can imagine each of the present wards, with a row of dark cells on each side, for the present side windows

were bricked up, whilst, the central higher part was a passage; the windows, as now, like Clerestory windows. After the new humane method of lunacy treatment came in, these wards became an anachronism, and were doomed shortly after I entered as a student. At that time, as I have said, the séance of Laughing Gas was only a tradition—the idea of anæsthetics, was yet unknown in England. I think only a very few of your readers can have any clear conception of Surgery before the introduction of anæsthetics. Rapidity and precision were the great "points" of the Surgeon. Amputation in seconds; arteries tied, sutures in, and bandage round and snug in three minutes or so. *Now*, "time is no object"; *then*, the time was taken, and Fergusson, of King's; Key, of Guy's; and Liston, of University College, closely "ran" each other. Of course, precision was also a "point"; but it and rapidity are, generally, twin accomplishments. Sometimes, however, in the rapidity of uniting the flaps, all the arteries were not taken up, and then a distressful scene was often witnessed. It so happened, that the Surgeon I dressed for was too sensitive, and to avoid prolonging the patient's suffering, closed the flaps over too soon, before securing every vessel likely to bleed; and thus secondary hæmorrhage occurred frequently. The opening of the flaps, clearing out the clots, and tying the artery and fresh suturing, was a performance very affecting; for a man who would go through the amputation without a twitch of muscle, perfectly stolid, would often roar and cry like a child on re-opening the wound; and I believe the latter was felt more severely. When one has made up one's mind to endure with fortitude, less pain is felt. "Screwing up the nerves," "bearing up against pain," "steeling one's nerves," or whatever we call it, is attended by a condition in which one is less sentient; at any rate, when not in that condition, our pain is actually greater. What is that state of "*nerve tension*"? Can you, Mr. Editor, help us here also? Tell us—have we a power of producing for our own selves a condition of voluntary anæsthesia? And if we have—say, to a a limited extent—can the very practice keep ourselves more or less permanently in this state? I fancy you will say yes. Supposing then, if, in endeavouring to avoid a particular pain, we weaken this habit, we become more sensitive to pain, and other kindred distresses; and thus, losing the habit, we are lifelong in a "quivering" state. Look at the "small boy," the only one, petted and coddled at home; what tortures he will suffer, when placed out at school, before he makes a typical schoolboy—if ever he does. Contrast him with the boy, brought up with other boys from childhood, who comes out of a good buffetting without distress, and all the better for it.

But it was a long way from these Laughing Gas exhibitions to the first use of Ether. I won't go through the whole discussion as to the inventor of anæsthetics; I am only now concerning myself with anæsthetics at Guy's. But somewhere, early in the "forties," there assembled some eight of Guy's men to try the effects of Ether on themselves. It was the ordinary sulphuric Ether, and not inhaled as now, from a bag, not half asphyxia and half Ether, but air plentifully along with it. Consequently, between impurity and dilution, the effect was by no means encouraging for its use in operations.

There was our classical friend, behaving as Prometheus bound, raving and calling on all the gods to rescue him, and trying to reach the ceiling. There was our old, kind friend poking one in the ribs and sweetly smiling; and our chief, though not most lucid, speaker at the Pupils' Physical lay on the floor in silence. But on getting up and clearing his brains, he observed that he did not wish to go over the same again, which same, he explained, was all his life. Hence the interest of an unravelled mystery attached always to him. Well, it was clear that this exhibition did not encourage the use of Ether. Purer specimens, however, were made, and irregular employment followed sometimes with fair success. However, it was not very long before Sir Jas. Simpson introduced the use of chloroform, which, whatever its demerits, produced, even from the first, very little excitement when the patient was completely under its influence—the most important point, from the Surgeon's point of view. I think it says a good deal in favour of chloroform that it has remained in fashion so long, though for the present it has been superseded in private operations by a pure gas--a pure Ether plus asphyxia. Yet it is still holding out in the larger hospitals, and in the country—and, indeed, in the Lying-in Chamber, has never yielded place to any other "form." As regards anæsthetics at Guy's, there has never been any lack of accepting all improvements. The writer of this pleads guilty to trying on cats various oxides of nitrogen, as well as chloroform. After a time, Bichloride of Methylene was a favourite with a Younker's apparatus, or its equivalent.

My memory won't serve me to say when the compound called A. C. E. was first used at Guy's; but it must have been some twenty years ago. It was a very favourite form; not so depressing, though more disagreeable than chloroform, and not so complete in effect. I wonder why "Gas" and Ether are not now in more use at Guy's, or other hospitals; it is quicker by far, both in bringing under and getting out of its effects.

There is one point in giving anæsthetics which I have never known attained at the hospital, intentionally or not—namely, the endeavour to produce anæsthesia without loss of consciousness, or rather, somnolence. Yet this is the simplest kind of action. I have seen it occasionally, when the patient seemed quite rational, with eyes open. I remember an old bachelor Quaker having his tooth out under chloroform. He appeared quite conscious all the while, said he felt no pain, but knew all that was going on. However, he added: "Did I say anything?" It is, however, difficult to attain exactly this point; it is a very fine one, and only suitable for the minor operations. When an operation is severe, the less the patient is capable of

observing the mangling and the gore the better; the memory of the sight without the pain is not desirable, and one of the great advantages of anæsthetics is the absolute blank regarding the whole affair.

But is the discovery of anæsthetics by inhalation a wholly unmixed advantage? To the Surgeon and Obstetrician one would answer—most certainly. To the patient (Surgical), in regard to each particular operation, one would say—yes. Not in *all* cases, says the Obstetrician. When it leaves the uterus imperfectly contracted it encourages hæmorrhage, and facilitates the collection and absorption of septis. But, altogether, the assistance rendered by them is incalculable. One need hardly observe that it has revolutionized Surgery and Obstetrics. Read the older works on Surgery and Midwifery, and then, Mr. Editor, go into Guy's operating theatre and judge for yourself. But I am wearying you and your readers, and so, for the present, must stop.—Yours, &c., IN MEM.

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Sir,—Can you, or any of your readers, kindly inform me what substance or substances in urine will give a bright cherry colouration with ammonia? This reaction was obtained the other day on adding a drop or two of liq. ammoniæ fort. to some urine passed by a woman aged 45, and at the same time beautiful crystals of the triple phosphate were thrown down. The patient was suffering from gangrene of the left foot, with general contraction of the arteries, and a pulse between 180 and 200 per minute. The urine was of a full yellow colour, acid, and sp. gr. 1017, and contained urates, epithelium cells (vaginal), and a small quantity of albumen. This latter has not appeared in later specimens, nor have they shown the colour reaction. Liquor potassæ did not produce the same effect, and other urines treated with the same solution of ammonia were not so coloured.

E. C. Kingsford.

Bolton, February 25th, 1888.

# Hospital News.

## INTERESTING CASES IN SURGICAL WARDS.

10 Lazarus—Sarcoma of Thigh.
13 Job—Popliteal Aneurysm (treated by digital compression).
24 ,, Scrotal Tumour.
17 Martha—Facial Cancer.
4 Luke—Stricture of Œsophagus.

## INTERESTING CASES IN MEDICAL WARDS.

15 Philip—Neuritis.
28 ,, Mediastinal Growth (?)
31 ,, Jaundice with Enlarged Liver and Spleen.
32 ,, Meningitis (?)
7 Stephen—Nervous.
3 ,, Ulcerative Endocarditis (?)
21 ,, Abdominal Abscess bursting through Lung.
22 ,, Cardiac without bruits.
34 Mary—Post-diphtheritic paralysis.
24 ,, Præ-diastolic bruit.
29 ,, Tubercular Peritonitis (?)
44 ,, Hydronephrosis.
2 John—Cardiac.
4 ,, Jaundice with gallstones.
9 ,, Jaundice with gumma of Liver (?)
10 ,, Cerebral.
22 Miriam—Insular Sclerosis.
6 Eye Wards—Commencing Detachment of Retina.
4 ,, Pannus.
36 ,, Conical Cornea and Perforated Ulcer.

# Sport.

## FOOTBALL.

### INTER-HOSPITAL CUP.

In the final of the Inter-Hospital Rugby Cup, Thomas' beat Mary's by 2 tries to nothing.

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### ASSOCIATION.

#### Surrey Cup.

Reigate Priory having refused to play Lyndhurst in the semi-final of the above competition, we, to our great surprise, received a notice, saying that in accordance with a precedent in the Surrey Cup ties, we were to journey to Dorking on Saturday to play the latter club.

This, of course, we were only too pleased to do, and won a pleasant, though one-sided, game by 2 goals to 0. The result would have been very different but for the bad shooting of our forwards.

W. G. Mitchell was the first to score by a splendid shot from the centre, and Brown soon afterwards increased the score by a very fine screw. Lyndhurst lodged a protest, but there seems every probability of its being dismissed.

The following was our team:—H. Wilks (goal); A. C. Roberts, G. W. A. Mitchell (backs); E. J. D. Mitchell (captain), C. G. Roberts, S. Woodhams (half-backs); H. J. Holman, A. T. Brown, C. D. Muspratt, E. W. Sharman, W. G. Mitchell (forwards).

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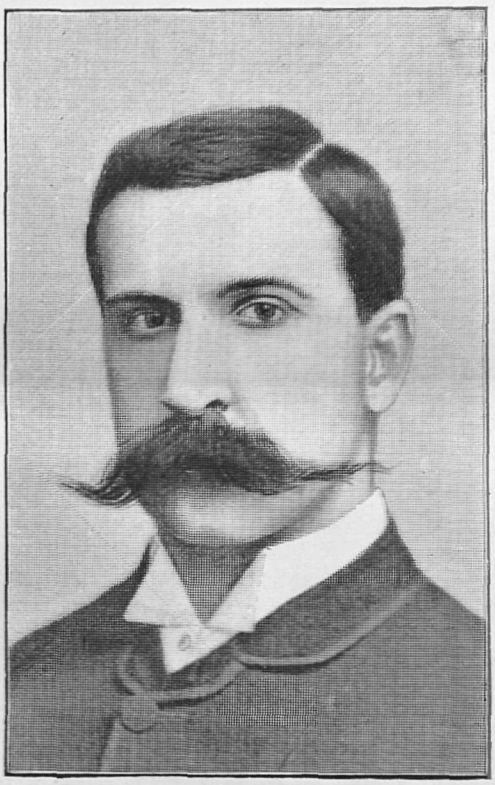
### INTER-HOSPITAL ASSOCIATION CHALLENGE CUP.

#### Final Tie.

Four years had passed since first a challenge cup
Was founded, to incite to eager strife
Such medicals as love, with skilful foot,
To urge the leather spheroid on its way:
And hold that thus their sport does more deserve
The name of football, than the other game,
Wherein their colleagues strain both hand and foot—
Aye! arm and leg, and the whole body too—
A fearful struggle—as if life and death
Hung on the issue. And for all this time
The valiant men of Guy's had bravely held
That trophy. Thrice they had the conflict waged,
And each time did their skilful general,



Great Holman, lead them on to victory.
And now, once more, they have achieved so far,
That only one more contest separates
Them from the consummation of their task.
Now, to describe that fight as it deserves,
My feeble pen shall impotently strive.
It was the first of March, and not the Ides,
So, with undaunted hearts, we sallied forth,
And, *viâ* G. E. R., arrived at last,
Without indecent haste, at Forest Gate
For Upton, where we found the "Spotted Dog"—
A striking animal, who claims descent
From those brave creatures of Mount St. Bernard,
Renowned for bringing brandy through the snow.
The sun shone brightly, but our journey down
Was darkened by the tales we heard of Bart's
Distinguished forwards, who should set at nought
Our backs' endeavours; so our thoughts were grave.

The coin was spun, and Fate, adverse to us,
Smiled upon Bart's, and offered them the choice.
They, nothing loth, resolved to take their stand
So that the wind might favour their attempts;
The while the kindly Sun beamed on our backs,
And shot his dazzling glances in their eyes.
The whistle sounded, and the strife began.
But who shall dare essay the narrative
Of all that happened on that fateful day.
At first, our adversaries made attack,
And brought the bounding leather near our lines,
To send it through the goal. But all their skill
Could not elude our staunch custodian,
Who, ably seconded by backs and halves,
Repelled each onslaught, till our forwards bore
The ball away unto the other end.
Backwards and forwards swayed the doubtful war,
And neither party could advantage claim,
While every man in turn did valiantly.
But even in the thickest of the fray,
Surpassing all, alike in sure defence
And bold attack, our captain, E. J. D.,
Appeared conspicuous, excelling both
His brothers, though they, too, did work right well.
And so things lasted till the time arrived
For a short respite, welcome from the toil,
In such a stubborn fight that none could score.
But brief the interval, for night drew near.
Again the leaders marshal their array,
With such advantages as may accrue
From changing ends, whereby we gain the wind,
And they the countenance of setting Sol.
Erelong our men make manifest their might,
And take the ball near their opponents' goal;
But though repeatedly they aim their shots,
They cannot gain the coveted effect.
Sometimes the fault is theirs; the ball goes wide
Above, or to one side. Much oftener
It passes straight, but only then to meet
A well-directed blow, which hurls it back
Through space—for Coulby ably keeps his charge.

At length the ball is passed out on our left
To Holman, who, although he has resigned
The leadership, still battles in our ranks.
He sends it spinning right across the goal.
The opposing back attempts to save his side,
Without avail, and Brown now sees his chance;
So, concentrating in his dexterous foot
Such strength and skill as could not be surpassed,
Impels it like an arrow through the goal—
A shot no man might stop. The point is ours,
And loud acclaims applaud the skilful stroke.

But still the game proceeds, till Mitchell, W.
Receives a horrid blow upon the crest
Of his right tibia. The blood pours forth.
A truce is called until the wound is closed,
When, though much hurt, he gamely struggles on.
Again, his brother George is charged by Bond,
And, having made his kick, is overthrown,
And backward flies in such a somersault,
As in the circus would have won renown;
Then rises from his contact with the earth,
Unscathed, but wrathful. Now the end draws near,
And victory appears within our grasp,
When, lo! Bart's champions make a last attempt.
So bold and vigorous, it sorely taxes
That fine defence which hitherto had kept
Our goal unscathed. Bravely the charge is met,
And, as the cliffs hurl back the roaring surge,
Our backs repel their dashing energy.
Invincible, until the signal sounds
That "time" is up, and victory is ours. REM.

## CRICKET.

The following are the 1st XI. fixtures for the ensuing season:—

| | | | |
|---|---|---|---|
| May | 5th | Club Match ... ... | |
| „ | 9th | Surrey Colts... ... | The Oval |
| „ | 12th | Crystal Palace ... | Crystal Palace |
| „ | 16th | Richmond ... ... | Richmond |
| „ | 19th | Caius College ... | Cambridge |
| „ | 23rd | Chiswick Park ... | Chiswick |
| „ | 26th | Reigate Hill... ... | Reigate |
| „ | 30th | Pallingswick ... | East Acton |
| June | 2nd | Brentwood ... ... | Brentwood |
| „ | 6th | Bickley Park ... | Bickley |
| „ | 9th | Streatham ... ... | Streatham |
| „ | 16th | The Philberds ... | Maidenhead |
| „ | 20th | Beckenham ... ... | Beckenham |
| „ | 23rd | Gravesend ... ... | Gravesend |
| July | 7th | Teddington ... .. | Teddington |
| „ | 12th | Blackheath ... ... | Blackheath |
| „ | 14th | Mitcham ... ... | Mitcham |

2nd XI. Matches.

| | | | |
|---|---|---|---|
| May | 5th | ... ... | University College School |
| „ | 9th | ... ... | King's College |
| „ | 16th | ... ... | Camberwell Grammar School |
| „ | 19th | ... ... | Wimbledon School |
| „ | 23rd | ... ... | Christ's College, Finchley |

| | | |
|---|---|---|
| June | 6th ... ... | Camberwell School (Return) |
| „ | 16th ... ... | Dulwich College |
| „ | 21st ... ... | Forest Hill C. C. |
| „ | 23rd ... ... | Highgate School |
| „ | 27th ... ... | Blackheath Proprietary School |
| „ | 30th ... ... | Gallery C. C. |
| July | 4th ... ... | Christ's College (Return) |
| „ | 18th ... ... | Wimbledon School (Return) |
| „ | 21st ... ... | University Coll. School (Return) |

## CRICKET CUP FUND.

Subscriptions have been received since our last issue by the Sub-Committee of the Cricket Club towards the Cup Fund from

Mr. Durham
Lucas
R. Hicks
Golding-Bird
E. Ager Jones
Mr. Poland
A. J. Carter
Dr. Pye Smith
Pavy

and from

Messrs. H. P. Lansdown
W. Bligh
C. C. Clarke
P. T. Fraser
E. L. Budge
C. Metzgar
W. P. Mossop
H. Braithwaite
J. M. Thorne
A. S. Taylor
H. J. Holman
A. R. F. Evershed
F. H. Brown
J. K. Reeves
A. H. Tubby
G. W. Mitchell
E. J. D. Mitchell
Messrs. W. G. Mitchell
A. C. Roberts
R. F. Robley-Browne
N. L. Richards
J. H. Harvey
H. F. Greig
C. D. Muspratt
H. Ralph
H. W. Webber
W. Hodgson
W. Hudson
J. P. Watkins
R. Gibson
F. M. Russell
G. Featherstone
W. J. Scott

Thus making up the total to £34; and, as there will be some expense entailed in putting on a suitable inscription, it has been decided to put the remaining 13s. 4d. towards this expenditure—the exact amount for the purchase of the cup being £33 6s. 8d.

## GUY'S HOSPITAL ROWING CLUB.

The Annual General Meeting of the Guy's Hospital R.C. was held on Tuesday, March 6th, N. C. Davies Colley, Esq., in the chair. Thirty members were present.

After the Secretary had read the minutes of the last meeting, the Treasurer's report was presented to the meeting, when a deficit of 1s. 8d. was announced.

The officers for this year were then elected—President, N. C. Davies Colley, Esq.; Captain, E. M. Pilcher; Hon. Sec. and Treasurer, W. C. Swayne.

Mr. Swayne proposed and Mr. Allport seconded, "That the committee this year be composed of eight members, two to be elected by the first year, two by the second year, and the remaining four by the senior years. The proposition was carried *nem. con.*, and the following eight members were elected as representatives of the first year, Messrs. A. E. Durham and W. Bligh; second year, A. Allport and S. Infield; senior years, A. G. W. Bowen, R. A. Bremner, E. J. D. Mitchell, and A. S. Taylor.

The President then made a few remarks on the advantages of rowing as a means of obtaining healthy exercise, and strongly recommended all students to become members of the Rowing Club. He also gave a short account of the doings of the Club in former years, saying, That in his time Guy's were only once defeated by crews from the other Hospitals; and that in days before his time, a very creditable show had been made at Henley and other regattas by eights representing the Hospital, and trusted that the day was not far distant when the successes of former years would be repeated.

The following propositions were then put to the meeting and carried, "That two auditors be appointed by the committee;" and an addition to the rules, "That all damage done to boats, &c., be paid for by the members causing them." After a vote of thanks to the Chairman, the meeting then terminated.

The subscription for the current year, 10s. 6d. for active members, and 5s. for honorary members, may be paid to any member of the committee, or any one of the officers. The Captain, Mr. E. M. Pilcher, is making arrangements for coaching beginners and crew. A crew, representative of the first and second years, will probably be formed in addition to the four for the Inter-Hospital race, and matches with some of the other Hospitals arranged for them. Notices of the days and hours on which practice will be carried on under the superintendence of the Captain, or members deputed by him to superintend, will be posted in the box in the colonnade.

Scratch races, and trial races for the selection of the crew, will be held at an early date.

## GUY'S HOSPITAL LAWN TENNIS CLUB.

A meeting of the Committee of the Lawn Tennis Club was held on Monday, and it was then decided to lower the annual subscription to 5s. (the initial heavy outlay of laying down the court, &c., having been almost met).

To counteract this loss financially it is especially hoped that many more will join and take an interest generally in the welfare of the Club this year than last, and so enable us to join the United Hospital Lawn Tennis Club and compete for the Challenge Cup, which has already been started, and for which a heavy fee (£3 3s.) is required. To do this we must have a good number guaranteed before May 1st.

The Hospital can boast of many good players, and there is every reason to suppose that Guy's will take as good a lead in this branch of athletics as they have ever done in every other.

The court has stood the winter very well, and will be quite fit for play by the middle of next week. A special vote of thanks is due to our President (Mr. Lane) for the endless amount of trouble he has taken, first in starting, and since in carrying on the Club; and save for his untiring efforts we should now be minus this means of recreation which is always ready to hand.

Guy's Hospital Gazette,

*APRIL 7, 1888.*

## CLOTHING.

(Read before the Sheffield Medico-Chirurgical Society.)

(*Concluded.*)

Having thus reviewed the properties of good clothing, we may now inquire what materials may be practically utilized as dress fabrics, and which of them best meet the chief requirements already noticed.

Fabrics may be divided into two classes :—

I. Those derived from the Animal Kingdom, and

II. Those derived from the Vegetable Kingdom.

In the former class we have, (1) *Wool* and Fur, made up into the form of flannel, stockingnette, cashmere, broad-cloth, felt, &c. ; (2) *Skin*, prepared as leather, and (3) *Silk*, in the form of silk, satin, velvet, crêpe, &c.

In the latter class we have (1) *Cotton*, manufactured into calico, muslin, velveteen, and many other fabrics ; (2) *Flax*, made into linen, cambric, and lawn ; and (3) *Caoutchouc*, made up with either vegetable or animal fabrics into Mackintosh.

In addition to these must be mentioned certain mixed stuffs, such as so-called Merino and Alpaca, made from mixtures of wool and cotton and Linsey-Woolsey, made of mixed wool and linen.

Woollen materials may be taken as the commonest and most useful representatives of the class of Animal fabrics, and Cotton materials as the best representatives of the class of Vegetable fabrics. And, if we compare these two in respect of the fore-mentioned characteristics of good clothing materials, we cannot but be struck by the great superiority in nearly all important respects which is presented by wool over cotton.

Thus, in that most important quality of conducting heat badly, wool has enormous advantage over cotton, and hence affords far greater protection from the injurious, as well as from the unpleasant, effects of cold. Woollen fabrics again absorb moisture so much better than do cotton fabrics as to be pleasanter and far safer during and after perspiration from exertion. Being more porous, also, they allow of better ventilation ; whilst, for protection from heavy rain, woollen and cotton garments alike require to be supplemented by an overall of Mackintosh. As regards weight, woollen materials, when dry, afford equal warmth with far less weight, and probably lose this advantage only when thoroughly soaked, as by long continued rain. In the matter of cleanliness again, wool has, I think, enormous advantages over cotton. Dry woollen fabrics can be very much cleansed by mere shaking and brushing (as we treat our coats and trousers) ; and by rubbing in water, with or without soap, they are washed far more easily and quickly than cotton fabrics. And then again, woollen materials exert a powerful cleansing action on the skin with which they are in contact, constantly brushing off the dirt by their rough surface, instead of having it plastered upon them, as occurs so much more readily with the smoother cotton goods. It thus happens that cotton and linen are popularly said to "*show the dirt*" much more than flannel, the simple reason being, that they much sooner *become dirty*. Then, too, as regards the use of poisonous or injurious dyes, wool has the advantage over cotton, that it has many natural shades of brown and grey, so that dyes are less frequently required to be used in its preparation. With reference to smell and the absorption of smells, I am not able to speak with confidence, having only just begun a few experiments on the subject ; but I have often noticed the unpleasant odour of a shut-up drawing room containing a cheap carpet and cretonne upholstering (nearly all cotton material), which is absent from one containing a high class carpet (of wool) and upholstery of silk or woollen fabrics. On the important point of inflammability, wool has altogether the advantage : whilst ignited cotton blazes into a flame, wool only smoulders and may be readily extinguished. Then again, woollen materials are stronger, softer, more flexible, more elastic, and more durable than cotton. Both classes of material admit of easy repair ; and the only points on which it may be claimed that woollen dress fabrics are inferior to cotton are, I think, that by the roughness of their surface they irritate the skin, that they shrink in washing, and that they are more costly. As regards irritation of the skin, however, it is by no means an unmixed disadvantage : a mild degree of titillation keeps up a healthy vascularity and activity of the skin, as well as a cleansing function, and few persons are so sensitive to this property of wool as to be unable to wear the very fine varieties which are now-a-days manufactured. The shrinking of woollen fabrics in the process of washing is, no doubt, a great drawback, but it is one which can be almost entirely obviated by due care. I believe that the main causes of this shrinking are the use of very hot water and of soda, prolonged soaking, the direct application of soap, and the practice of wringing ; and if, in addition to avoiding these, attention is paid to the stretching out of the garments and to their rapid drying after removal from the water, no great amount of shrinking occurs. Lastly, the cost of woollen goods is, and probably always will be, greater than that of cotton. When, however, we take into consideration their numerous advantages, especially from the health point of view, we must admit that they are well worth the extra expenditure.

I need not refer in detail to the properties of other materials. Silk is in many respects intermediate between wool and cotton, but it is more expensive than either, and is used chiefly on account of its appearance. Linen closely resembles cotton, but is smoother and a still better conductor of heat. Leather is useful, on account of its strength and of its imperviousness to wind and wet, for boots, gloves, &c., and for overcoats, where protection against very severe cold winds is required.

Mackintosh is well adapted for protection from rain, but should not be worn long enough to allow perspiration to collect much beneath it, and should be of open cape-shape in order to permit of ventilation. I don't know whether it is so generally known in the profession as it ought to be that this material was invented by a great surgeon; not by the Scotsman whose name it bears, but by his fellow-countryman, James Syme, who published an account of it in the "Annals of Philosophy" seventy years ago, a short time before Mr. Mackintosh took out his patent.

I have left but short time for considering the various articles of dress of an Englishman's wardrobe.

Premising that all garments are supposed to be made throughout from pure woollen fabrics unless otherwise specified, I think they should be somewhat as follows:— The body should be covered with a somewhat loose-fitting shirt of double thickness in front. A close-fitting vest underneath it is, I think, generally objectionable. It is liable to become too tight both from the growth of the wearer and from its own shrinking, and I feel confident that it then often has an injurious effect in hindering the free expansion of the chest. If more warmth is required, a wide knitted belt may be worn round the waist, outside the shirt, and this affords an excellent protection from cold to the abdomen and to the loins. During the winter, especially for those not possessed of much subcutaneous adipose tissue, a Cardigan jacket may be worn outside the shirt and belt. Over this will come the waistcoat, buttoning pretty high, and outside it, again, the coat, which, for warmth, should be double-breasted. For the sake of appearance, the neck should have a linen collar, which should be loose enough to avoid compression of veins in the act of coughing, &c., but sufficiently close-fitting to prevent wind from blowing down to the surface of the chest. It should not come so high as to interfere with the free movements of the neck, and it is important that it should always be of the same height, otherwise a part of the neck will be sometimes covered and sometimes exposed, and in the latter condition will afford a point of attack for the injurious influence of cold. The opening of the waistcoat in front should be entirely filled up by the scarf. The sleeves of shirt, Cardigan, and coat should be loose except at the wrists, where they should be tight enough to impede cold draughts; and linen cuffs, to correspond with the collar, may be worn on the shirt. The legs should be covered with drawers, fitting close above the ankles but fairly loose elsewhere, and over them the trousers, suspended, together with the drawers, by braces outside the shirt. The feet should be covered by socks made right and left and with a separate compartment for each toe. This dividing of the end of the sock conduces greatly to a healthy and cleanly condition of the skin of the toes, as well as to their warmth and natural development; and even if the great toe alone be treated to a separate compartment it does much to prevent that pressing of it towards the middle line of the foot which is generally attributed to a faulty shape of the boot, and which is one of the most barbarous deformities of civilised races. The boots or shoes, which should of course be made right and left, should be sufficiently long and wide to allow of the expansion of the sole in walking, supple enough to permit the foot to bend easily at its proper joints, and provided with large, low heels, placed far back, so that the gait may be steady, the balance undisturbed, and the toes not driven forwards and crushed in the front part of the boot. For indoor wear they may be made of cloth with leather soles. For outdoor wear the uppers alone may be of cloth. In either case, the boot should be lined with flannel. For convenience of adjustment to varying conditions of the feet, lacing is no doubt the best method of fastening, but for driving and moderate walking, elastic sides are, I think, admissible, provided they are never at all tight.

Some one may say, "That may be a suitable costume to do your work in, but what about evening dress?" The change to evening dress is very simply made. All that is necessary is to dispense with the Cardigan, if worn, and in place of it to put on a dress shirt over the woollen one. All the other garments are the same, though of different cut.

But, besides this, we must consider the additions necessary on going out of doors. In summer time a light hat may be all that is needed, but in winter most men will require an overcoat if the weather be cold, windy or wet, especially if, like the doctor, they are exposed to constant changes of temperature, occupation, and modes of locomotion. In going for a steady walk it is different; the exercise then will generally render an overcoat both unnecessary and irksome. Ought the overcoat to be kept on in going into a house for a short visit, or to a public meeting? As a general rule, I think it ought, provided that the temperature of the room is not such as to induce perspiration or an uncomfortable sensation of heat. I feel sure it is unsafe for thin and chilly men to hang their overcoats in a cold hall, immediately they enter a house in cold weather, and to resume them only at the moment of leaving. By such means a large quantity of the heat of the body is abstracted, and, instead of "feeling the benefit" of the extra covering on going out into the cold, they are for a time further chilled by it; whereas, had they kept their coats on, they would have been as warm on going out as on entering. Gloves are, I think, of decided value out of doors in cold weather, and thick kid protects better from wind than does wool. At all seasons, too, gloves are useful in towns for keeping the hands clean. On the other hand, I disapprove of mufflers round the neck, except in such circumstances as driving in a very cold wind. They have a great tendency to induce perspiration beneath them, and this, on their removal, may give rise to cold. As a general rule, sufficient protection from a cold wind is afforded without this drawback by turning up the coat collar. The hat is a great difficulty. It is not every man who has such a head of hair as will protect him from the sun; and even for those who have, society insists on a covering of some sort. The desider-

atum is a hat which shall be soft, light—both in weight and in colour—broad-brimmed, well ventilated and shower-proof, and which, at the same time, shall consort well with the rest of a gentleman's costume, and be easily amenable to the act of salutation. Till that is found, we must either ignore or meekly acquiesce in the fashion, thankful, in the latter case, to remember that in summer time the colour of the tall hat need not be black.

And now my time must, I know, be well nigh expended. I will therefore pass over entirely the important subjects of Women's Dress, the Clothing of Children, Night Dress, Athletic and other Costumes, and will conclude by referring to what I take to be the two most common faults of modern English dress, namely, (1) the use of material which is too good a conductor of heat, and (2) the wearing of garments which are too light. Nature has provided the lower warm-blooded animals with coats of wool or fur, and if, instead of utilising this for ourselves, we persist in wearing cotton socks and linen shirts, we must take the consequences of our stupidity. And if fashion or vanity, or neglect, lead us and our sisters to pinch our chests, our waists, our feet, we must expect the ailments and the discomforts to which such folly gives rise.

Suitable clothing not only conduces to our comfort and health, it serves also to ward off accident as well as disease, and it tends in no small degree to help us in the every-day work of life.

R. J. PYE-SMITH.

## SOME REMARKS ON SCARLET FEVER.

(Read before the Guy's Physical Society, March 1, 1888.)

*(Concluded.)*

I do not think that the smaller text-books of medicine say much on the subject of relapses in scarlet fever. But such occurrences are by no means uncommon, Thomas distinguishes a true relapse from what he calls a pseudo relapse or *reversio eruptionis*, and from a second attack. Under the name of pseudo-relapse, he places those cases in which during the second or third week a transient erythematous rash appears, the temperature remaining still above the normal. In a true relapse the eruption is a true scarlatinal eruption; there is a fresh inflammation of the tonsils and fauces, and the temperature rises, it may be as high as in the first attack; in fact the relapse may be more severe than the first attack. I have seen a few cases in which a relapse has taken place at times varying from the second to sixth week after the beginning of the original illness. Such cases must be treated as primary attacks, from which, in regard to the course they run, they are not to be distinguished. So that if a patient is unfortunate enough to get a relapse in the fifth week, he would have to be kept isolated until at least desquamation had finished, five or six weeks from the date of the relapse. These cases in which relapses take place must be distinguished from those in which a secondary sore throat occurs, accompanied by a high temperature, the patient at the same time feeling very ill. In the latter there is no fresh rash; and the throat affection may be much worse than it was in the original attack. I am not now speaking of those cases of a severe and grave character, and which often end in death, in which the temperature remains up, the rash slowly disappears, and the inflammation of the tonsils and neighbouring parts, bad in the first instance, gets worse as the disease goes on. In such cases the fauces become ulcerated, and sloughs are formed; the breath is exceedingly fœtid, and there is an offensive discharge from the nose, and sometimes also from the ears. The glands in the neck and below the jaw get very much enlarged, and the surrounding tissues inflamed, so as to form a brawny mass, in which suppuration and sloughing may occur in different places. By the time this has happened the rash has perhaps disappeared, and desquamation is going on. But the condition of the throat gives rise to septic absorption, which may prove fatal. In the cases of secondary throat affection, however, the patient has in most instances sufficiently recovered from the original attack to be up and about. Rapidly inflammatory changes take place in the fauces; diphtheritic looking patches may appear, leading to the formation of ulcers with greyish bases, whence a slough may separate. The temperature rises. The glands in the neck become enlarged. This condition most usually supervenes during the second, third, or fourth week. Sometimes albuminuria and evidence of nephritis follows the throat affection. One can differentiate these cases into groups. In one, the fresh faucial inflammation has been preceded by an otorrhœa, or rhinorrhœa, and the glands become affected after and apparently secondarily to the throat. In a second, there is the previous otorrhœa, and then follows the glandular inflammation, and lastly the tonsilitis. It has been suggested that there is a fresh inoculation from the diseased ear in such cases; I do not think so myself, as there is no rash; besides, the above-mentioned gland and throat affections may take place without any previous discharge from either nose or ears.

Some of these cases are accompanied by albuminuria, more or less severe. In fact, if a patient during the second, third, or fourth week of scarlet fever complains of a sore throat and painful cervical or submaxillary glands, or of ear-ache, one should always look out for evidence of nephritis, either occurring at once or coming on in a few hours. Otorrhœa, instead of being before the secondary inflammation of the throat, sometimes follows it. I have just said that nephritis often accompanies or closely follows this secondary throat trouble; though by no means always. The nephritis which occurs within the first six weeks of scarlet fever is of all degrees of severity. I say nephritis, because a microscopic examination of the urine leads to the conclusion that frequently the kidneys undergo a serious pathological change.

Sometimes the patient feels ill when the albumen first appears, but in many cases this is by no means the

case; so that unless the urine were systematically examined every two or three days, one might overlook even a serious albuminuria in any patient. In the cases of albuminuria which I have had the opportunity of seeing, there were all degrees of severity, from the appearance of a mere trace of albumen lasting for a few days only up to a loading of the urine with albumen, with hæmaturia, scanty urine, and death; or if death have not occurred (and it is not very common, in scarlatinal nephritis that is to say), the albuminuria continues for three or four weeks or for longer. In some cases the albumen is at first slight in amount, and increases until in a few days there is a large quantity, the urine during the same time becoming smoky and having a reddish-brown deposit. But not at all infrequently a large quantity of albumen suddenly appears in the urine and the smoky hue and red deposit accompany it. On microscopic examination granular and epithelial casts are found, with renal epithelial cells and red corpuscles and leucocytes. Sometimes a good deal of blood is to be seen; but more often, considering the smoky appearance of the urine and the reddish-brown colour of the deposit, the number of blood corpuscles is very small indeed; so that it would seem as if the urine contained more the colouring matter than the red discs of the blood; fn fact granular amorphous material, of a yellowish red colour, is also found when the deposit is examined under the microscope. In most cases under appropriate treatment the amount of albumen drops from three-quarters to a half, a quarter, and gradually lessening amounts until it disappears. The amount of urine passed in such cases is generally a few ounces under the normal amount *per diem*, though sometimes it is rather scanty at first. But the amount may he quite normal, or even above the normal. More rarely there is only a very small quantity indeed passed; and this condition may be followed by complete suppression, convulsions, coma, and death. Albuminuria most often occurs in the second to the fourth week; but I have known it first make its appearance at the end of the sixth week. In some of the cases the urine, though highly albuminous, is at the same time loaded with urates. As I have mentioned before, the albuminuria may follow or accompany otitis or a secondary throat affection. Herpes breaks out below the lower lip, leading to slight superficial ulceration.

The albuminuria occurring in the second to the fourth week must not be confused with the albuminuria, generally slight, which accompanies the febrile stage of the disease during the first week. This albuminuria passes off as the temperature goes down. The administration of salicylate of soda often causes slight albuminuria; but neither of these two conditions necessarily lead to the more serious form of albuminuria. The other symptoms pointing to nephritis are headache, vomiting, and a rise of temperature; the tension in the arteries seems to be slightly increased; but as far as one can judge by the finger, by no means to such a degree as is found in the chronic forms of kidney disease. The patient, as the albuminuria continues, becomes anæmic. But I wish to impress upon you the fact that it is not at all uncommon for patients to appear to be progressing quite favourably, and yet to have a large amount of albumen in the urine, so that they are surprised when they are sent back to bed and put upon a low diet. Dropsy is very uncommon; there is only a little puffiness under the eyes, and sometimes about the ankles, but not general anarsarca. In the majority of cases the urine becomes free from albumen before the patient leaves the hospital (eight or nine weeks, or longer). There seems to be no doubt that an attack of acute nephritis during scarlatina may be the origin of a chronic kidney disease, of which the symptoms make their appearance later on in life; but I am not aware of any published facts or statistics showing how many patients who have had scarlatinal nephritis afterwards become affected with Bright's disease.

Before I close I shall make a few observations on the complications and treatment of scarlet fever. Besides albuminuria, one must be on the look out for discharge from the nose or ears. The former generally occurs during the febrile stage, and is by no means a grave symptom, unless the discharge is of such a nature as to show that there is sloughing or ulceration of the nasal cavities. Otorrhœa may come on early, but is more often later, preceded by earache and a rise of temperature. In most of the cases in which I have had an opportunity of making an autopsy there has been more or less evidence of otitis media, even though there has been during life no otorrhœa. This sequela is very tedious to cure, and may be the origin of a chronic ear disease; but during the time of the patient's stay in the hospital it is rare to get meningitis, even though pus may form in the tympanic cavity. Cerebral symptoms are either due to the severity of the pyrexia, or to the occurrence of nephritis and uræmia.

Rheumatism is a very common complication, generally coming on while the rash is fading. It varies from pain in the joints of no great severity up to acute pain in the joints with swelling (most commonly of the joints of the wrist, hand and fingers), and with pyrexia; but the swelling is not usually very great. Salicylate of soda gives relief; but not infrequently the rheumatic affection is very obstinate. Endo- and peri-carditis may occur. Chorea is not common. The lungs are not often affected, but I have seen three or four cases of pleurisy with and without effusion. In one case it followed albuminuria, and the effusion became purulent. The empyema was opened; but acute lobar pneumonia of the other lung led to the death of the patient, a little boy. Suppuration of the lymphatic glands and cellulitis are common. Much more rare are periostitis and acute destructive inflammation of joints. Laryngitis may occur, especially in connection with the membranous inflammation of the fauces which I have already mentioned.

Regarding treatment; there is no specific with which I am acquainted. Belladonna was at one time much used, but it is not so now. Some are of the opinion that

biniodide of mercury will cut short the acute stage; I have tried it in a few cases, but have not seen it do the slightest good. In fact it does harm, setting up diarrhœa very easily, so that I have never pushed the drug to salivation. The fever must be treated on general principles; but, inasmuch as the skin is often pungently hot in the acute stage, wet packs give relief; as also does sponging with cold or tepid water, as the case may be. But one has to be very careful in employing these methods of treatment in asthenic cases. Ventilation is of the utmost importance all through the illness. When the wards in the London Fever Hospital get at all overcrowded, secondary sore throats are more frequent. If on account of restlessness, want of sleep, or delirium, narcotics and sedatives are indicated, one should be very careful in prescribing opium; it is a very dangerous drug in severe cases of scarlet fever. Chloral hydrate or bromide of potassium or ammonium may be given. Antifebrin has a narcotic as well as an antipyretic action. The inflammation of the throat may be treated with a gargle or spray of chlorate of potash and water, to which has been added some hydrochloric acid, so that there is some free chlorine in the solution. But if there is much secretion about the fauces, much more benefit results from the application every three or four hours of a powder consisting of one part of bicarbonate of soda, one of chlorate of potash, half of borax, and two of sugar. Some prefer to omit the chlorate of potash, because this drug is known, if taken in too large a quantity, to produce hæmoglobinuria; and in scarlet fever the kidney has already a tendency to be attacked. For the same reason others do not like to give salicylate of soda, unless the rheumatism is so severe as to make its use necessary. Instead of sugar, saccharine may be employed; it is stated to have antiseptic properties. Irrigation with a saturated solution of boracic acid, is one of the best methods of treating otorrhœa and rhinorrhœa. But of course other antiseptics may be used.

In the event of albuminuria happening the patient should be placed on a milk diet. Poultices should be applied to the loins and a hot air or warm water bath given once or twice a day. In severe cases cupping or leeching the loins is beneficial. The bowels should be freely opened. When the patient has passed the first stage of the nephritis and is becoming anæmic, some preparation of iron is of great use, combined with a slight increase in diet. I have often seen albumen rapidly disappear from the urine under such treatment. Malignant cases of scarlet fever require a free use of stimulants. I have seen two cases in which practically no hope of recovery was held out, but in which both patients recovered. Brandy and champagne were given in excess, as well as ammonia and æther.

The process of peeling is facilitated by warm baths. The soles of the feet, where the desquamating epidermis remains on longest, may be painted with a solution of salicylic acid in collodion, to hasten the process.

Lastly, in the case of scarlet fever, the patient may be allowed to go out and about as usual when desquamation has completely finished; so that (provided no sequelæ or complications prolong the time) a child is kept isolated eight weeks, an adult six or seven. Cases of morbilli should be isolated for ten days from the appearance of the rash; and so also should cases of rubeolæ.

E. W. GOODALL, M.D.

## ON SMALL-POX.

By the Medical Superintendent of the Hospital Ships.

A man was exposed to smallpox infection from the 20th to 22nd Jan.; on the 3rd Feb. he had "shivers down the back and legs; pains in the back; he could not get warm, although sitting over a fire." Next day, "something similar." On the 5th, headache, "couldn't eat, and fairly done up." Had half-a-pint of spirit—vomited. Noticed spots on left hand. 6th, fainted in the morning. In the evening, on admission, he had a general papular eruption, and his palate was covered with grey spots.

A woman was exposed to smallpox infection from 17th to 25th Feb. She had "bearing down" and backache, 6th Mar. Eruption on face, 8th. On the 9th, the general eruption was papular, and the palate covered with grey spots.

The eruption on the palate is in an advanced stage at the time a patient comes under observation in hospital.

In the few instances seen at the beginning of the initial illness the eruption is there—sometimes grey, at others, merely a brighter colour than the neighbouring mucous membrane. Occasionally, the patient has suffered from sore throat for a day or more before feeling ill. The sequence, after infection, may be stated as—eruption on air passages, followed by initial illness; eruption on skin, followed by fever of maturation. These eruptions differ—the former being superficial, and not destroying tissues: the latter deep, and resulting in scars. The severity of the illnesses varies directly as the amounts of the eruptions. These, in the severe forms, are sufficient to interfere with the functions of these surfaces in excreting the lung poison or the skin poison. In the mild forms evidence of poisoning may be absent.

The early symptoms of smallpox—rigors, headache, backache, fever, &c.; occasionally a rash or a purpura—may all be produced by the incompetence of the lung surface to excrete the lung poison. Rash or hæmorrhage does not indicate an abundant eruption of pocks, but is an idiosyncrasy—just as some foods or drugs are followed by urticaria, petechiæ, or hæmaturia in one and not in another.

The phenomena of the fever of maturation may likewise be attributed to the arrest of excretory function of skin and retention of skin poison. They correspond with

the effects of other conditions, in which a great portion of skin is rendered useless.

Death early in the disease is usually associated with one of the two purpuric forms. In the first the patient is pale and sweating, with perhaps a few small petechiæ on the skin, and dies in a few hours. Minute ecchymoses are found on most of the serous membranes and elsewhere. The other, lasting for days, may have purpura all over the body, and oozing of blood from every orifice. Both forms are rare, the former seldom seen in hospital. Death, later, occurs about the twelfth day of the eruption. Small patches of pneumonia and eruption on mucous membrane, down to quite small branches of the bronchial tubes, are seen. It may occur earlier in children, from obstruction at the larynx to breathing, if there is much tumefaction of the tissues. Tracheotomy delays the event till the usual time. It should, however, be done for threatened suffocation from obstruction in the larynx, and also for threatened drowning from the accumulation of fluid in the bronchi through inability to expectorate. In both instances, the respite, not the result, is encouraging.

Later than the first fortnight of the eruption the smallpox part of the illness is at an end. If the patient is still unwell it is some other disease—one of the wound-infecting diseases. Convalescence is rapid, unless the patient's recovery is delayed by effusions and suppurations.

If smallpox is only a plant growing on the surface, we ought to be able to kill it, or prevent it growing. And we can.

Menthol, dissolved in oil, is tolerated in unlimited quantities. An adult can take an ounce and a half of the crystals in a day. It is partly excreted by the lungs, in an altered form, as evidenced by an altered herby smell of the breath, not at all resembling the smell of menthol. About thirty grains, dissolved in two drachms of linseed oil, given three times a day to an adult, produce this herby smell of the breath in two or three days. It is difficult to induce patients to swallow a second dose. When they take it well for about five days, and retain, say, a minimum of 450 grs., if the exhibition has been commenced before late vesiculation, a marked and beneficial result is apparent in breathing, swallowing, and temperature. Menthol, however, cannot be applied to the skin eruption, on account of the cold feeling: nor is it suitable for pricking pocks with a needle dipped in the oil, as much swelling and pain are produced by doing so.

I well remember a fellow-student asking Dr. Moxon what was the best medicine for typhoid fever. The instant reply was: "They do best when taking the Mist. M.P. of Guys." He hurriedly passed on to the next bed. I have had an opportunity of giving small doses (2½ grs.) of menthol to a typhoid patient, and the temperature chart, after a few days, resembled the typical chart for the fourth week.

Several substances arrest the development of a pock—oleate of mercury ointment, turpentine, iodoform, if applied early and continued; but they are objectionable.

A paint of Pulv. Cretae Aromat., about 60 grains to an ounce of water, laid on with a flat one-inch camel-hair brush, on all parts where the eruption is at all abundant, prevents tumefaction of the tissues, and modifies the pock. If begun when the eruption is papular, the papules become somewhat larger, but remain as papules; if when vesicular, a dry scab forms, and a solid, elevated lump remains. The paint should be washed off night and morning and re-applied. Its effect is well demonstrated by painting one side of the face and leaving the other alone. By the fifth day the painted side will be dry, and there will be no swelling even of the eyelids; the other side will be œdematous, so that the lids cannot be opened, and during the following week damp with pus.

# Correspondence.

*To the Editor of* Guy's Hospital Gazette.

## LIPO-SARCOMA.

Dear Sir,—The very interesting case related by Mr. Kingsford in your last issue merits after remarks. A variety of Sarcoma styled "Lipomatous" is mentioned in Pepper's Pathology, the description of which is apparently quoted from Cornil and Ranvier. According to the latter authors, sarcoma cells may become infiltrated with fat globules without being destroyed or ceasing to live; and this condition is in marked contrast with the fatty degeneration or caseation which is so commonly observed in the softer Sarcomata. Ziegler refers only to the occasional mingling of sarcomatous and adipose tissues. This is well illustrated by a specimen in the College of Surgeons' Museum. It weighed 50 lbs., and was removed from the neighbourhood of the right kidney. On section, it consisted of anastomosing bands of fibrous tissue enclosing masses of fat or adipose tissue. In the centre of the specimen were two circumscribed masses of soft vascular growth, composed of small round and spindle sarcomatous cells. Secondary growths were found in the liver and abdominal glands. Mr. Kingsford's specimen is probably of the same kind. Now, without supposing that the actual fat cells of adipose tissue are converted into sarcomatous cells (by no means an unparalleled assumption), one can readily understand how the fibrous septa or capsule of adipose tissue, or a lipoma, might undergo such a change; and thus the exceptional appearances would be explained. The case is also of interest with respect to the multiplicity of new growths, and its relation to the so called "tumour diathesis."—I am, &c.,

J. H. T.

Mar. 28th, 1888.

## Passim.

In our last number we suggested certain alterations in the rules of the Physicial Society that we thought would add materially to its attractions and utility. These suggestions have been put before the Presidents and have been adopted. In future the meetings will be held on a Saturday instead of on a Thursday, as has been the case for the two preceding winters. We are glad to see that the financial condition of the Society is so satisfactory, all outstanding debts having been paid off. We have to congratulate the following gentlemen on their election as Presidents:—Messrs. Colclough, Durham, Kitching, Moss, Mothersole, and Ricketts.

In a late number of the *Lancet*, Mr. W. L. Braddon contributes the result of some experiments that he has made on oil of peppermint as an antiseptic, and we would commend his paper to our readers. The idea of using peppermint occurred to him on reviewing the work of Cornil and Babes, "Les Bacteries," for the early numbers of the Gazette. As a germicide, it seems to be as powerful as corrosive sublimate, with the advantage that it does not possess the extremely poisonous properties of this latter antiseptic. Mr. Braddon is the first, we believe, to apply oil of peppermint to surgical work, and we daresay that many others will now follow in his footsteps, and either prove its use or demonstrate its inutility. There is one great objection that the oil possesses, and an insuperable obstacle we should imagine to its use in many cases, and that is its odour. Whether this can be overcome time and experiment must shew.

In the last number of the *Lancet*, Dr. Hale White suggests the use of Simulo instead of Bromide of Potassium for Epilepsy. With the exception of one case which was benefitted by neither Simulo nor Bromide of Potassium, all the cases that he has tried it on shewed considerable improvement under the use of the drug, the fits being diminished in number. At the same time no ill effects were noticed after the use of large doses, one patient, in fact, getting rid of a severe bromide rash whilst taking Simulo.

To Mr. R. D. Mothersole has been awarded the Golding-Bird Prize for Medical and Surgical Diagnosis; to Mr. J. H. Bryant the Michael Harris Prize for Anatomy; and to Mr. E. H. Starling the Beaney Prize for Pathology. The successful efforts of these gentlemen will meet with the sincerest congratulations of all our readers.

The Guy's Hospital Reports have now been ready some short time, and are, we hear, to be obtained at the Medical Office of the School.

After waiting for several weeks, we have at last received three contributions to our competition. Of these three, Dr. Pye-Smith, who kindly volunteered his services as judge, considers the paper entitled "Caries of the Vertebræ" to be the best. To Mr. Capes, the author of the paper, the prize of one guinea will be forwarded.

## Physical Society.

The last meeting of the Society for the session 1887-88 was held on Thursday evening, March 15th. Dr. Wilks in the chair. There were present 48 members, and the following visitors:—Mr. Lushington, Mr. Golding-Bird, and Mr. Targett.

The President called upon the Secretary to read the Annual Report of the Presidents, which was as follows:

"The Presidents congratulate themselves on the financial position of the Society, the outstanding debt having been paid off and a small balance standing to the account of the Society.

The attendance at the meetings has considerably improved this session, owing chiefly to the kindness of the

Treasurer in allowing the Students' Club to be kept open on the nights on which the meetings were held.

The Treasurer's Prize has been awarded to Mr. Kitching for his very excellent paper on "Rest and Pain."

The Society's Prize of £10 is to be divided equally between Mr. Mothersole and Mr. R. E. Williams, for their papers on "Pathogenesis *versus* Protection," and "Carcinoma of the Œsophagus," respectively. The Presidents also commend the papers read by Messrs. Thistle and Ricketts.

The following gentlemen have been elected Presidents of the Society:—Messrs. Colclough, Durham, Kitching, Moss, Mothersole, and Ricketts.

It has been decided to change the day on which the meetings are held from Thursday to Saturday, the Presidents believing that the latter day will be more convenient to the larger number of the members of the Society than the former."

The report having been received with cheers, Dr. Wilks then called on Mr. Kitching to read the prize paper on "Rest and Pain." This, as was expected, proved to be a most interesting and instructive paper. It was unfortunate that its length compelled the reader to proceed at such a pace that the more distant members were unable to catch many of the remarks; but this fault will probably be made up for by the publication of the paper in the Gazette.

In the discussion that followed

Mr. Starling said that he considered pain of great value to the patient. It is an important factor in preventing movement that would be injurious to the patient.

Mr. Norburn remarked that pain had a very deleterious influence on the individual.

Mr. Campbell did not think pain was such a simple thing from a diagnostic point of view as Mr. Kitching had made out; and said that a difference must be made between intellectual and physical pain.

Mr. Whitby found that drugs frequently prevented the possibility of rest, and so prevented cure.

Mr. Spurrell wished to know whether animals low in the scale suffered as much pain as man.

Mr. Girling asked Mr. Kitching if he thought pain could have a central origin; and instanced hysteria and sympathetic pain.

Mr. Lloyd-Roberts showed that the value of pain as a means of diagnosis was considerably diminished by the facts that the same lesion produces a different amount of pain in different persons, and that the same person's idea of pain can be altered at different times under the influence of the will.

Mr. Kitching then briefly replied to the remarks that had been made, and a vote of thanks to him for his excellent paper, proposed by Mr. Lloyd-Roberts, and seconded by Mr. Starling, was carried unanimously.

Messrs. Kitching, Mothersole, and Williams, as the prizemen for the year, were congratulated on behalf of the President by Mr. Whitby and Mr. Black.

Mr. Drew proposed and Dr. Goodall seconded, a vote of thanks, which was carried unanimously, to the Treasurer for his kindness each year in offering a prize to the Society, and for the interest he showed in the Society. In reply, Mr. Lushington said that he was especially pleased to be present that evening and to listen to such an excellent paper. He always took a great interest in the Society and in the Medical School. A vote of thanks to the Presidents was proposed by Mr. Kitching, seconded by Mr. Ricketts, and carried.

The thanks of the Society, proposed and seconded by Messrs. Starling and Campbell, were then given to the Honorary Secretaries, Mr. Lane and Dr. Pitt, for the able and energetic way in which they had managed the affairs of the Society.

Dr. Goodall then proposed, and Mr. G. B. Smith seconded the last vote of thanks, which was carried with acclamation, to Dr. Wilks, for presiding over the meeting not only that evening, but also the opening and closing meetings of each session. In reply, Dr. Wilks said he felt proud of his position as Honorary President of the Guy's Physical Society, as it was by far the *oldest medical society* in London. It was founded in 1771, and compared to it the Pathological, Medical, Obstetrical, and all other Societies were mere *infants*. Mr. Cock was its first president, and was wont to call it his *child* and himself its *dry nurse*. Dr. Wilks said he followed Mr. Cock in the presidency, and as the second president he took a special interest in it. The more so as now it formed the only *link* between him and the Medical School. He congratulated the Society on its present prosperous condition.

The Meeting then adjourned.

## GASTRIC ULCERATION, WITH SPECIAL REFERENCE TO DYSPEPSIA.

Lecture to Clinical Assistants at the West London Hospital, by Donald W. C. Hood, M.D., Cantab., Physician to the Hospital.

Gentlemen,—During the past few months we have seen several cases in which the prominent trouble has been assigned to the stomach. I should like to bring those cases before you somewhat in detail. From a careful consideration of some of the more important points, I hope we shall be able to deduce truths which will be of service to us in our profession.

I have headed my lecture as one on Ulceration of the Stomach, and the cases which I shall bring before you relate to this disease. I shall not, however, scruple to direct your attention to others in which ulceration was not present; I do so that I may have the opportunity of impressing upon you the importance of making as exact a diagnosis as is possible.

As your experience and knowledge ripens, the more you will call in question the propriety of making too free a use of the word "Dyspepsia," as marking a special *form*

or *kind* of disease. You will rather analyse this *symptom* more closely. It is often a very important one, giving tone to that hazy, indefinite line, which, in so many cases, we shall find dividing serious organic lesions from mere functional disturbance.

Let me now, in brief, allude to those cases which in aggregate I take for my text. The first is that of a poor woman, who being suddenly seized with severe abdominal pain, was admitted into the hospital within but a few hours of her attack. So sudden and severe were her symptoms that those who saw her on admission thought there must be some obscure hernia: you will remember that the pain followed directly—immediately—upon lifting a heavy weight. The previous history of this case disclosed nothing more than a little dyspeptic trouble, hardly to be called even indigestion, and you know that indigestion is only too common among the servant class. The preparation before us shows only too clearly the reason for the dyspeptic trouble. That sharply cut, punched-out, circular ulcer, perforating through the stomach walls, explains the sudden pain so rapidly followed by fatal peritonitis. We learn from this preparation that it is possible for a patient suffering but slight indigestion, perfectly able to get about, and perform the ordinary duties of life, to be the subject of a deep ulcer affecting the whole thickness of the stomach coats, liable to give way at any moment, and to allow the contents of the stomach to flow into the peritoneal cavity.

The next case is more wearisome in its details. Month after month the poor woman suffered from almost all the ordinary classical symptoms of ulceration of the stomach. Her case, as far as it clinically brings before us the well recognised symptoms of ulceration, might with advantage be taken as ideal, and would well form the basis for a text book description.

She suffered pain at times—extremely so. The irritability of her stomach was often most intense; week after week it would retain no fluid, however bland it might be, and however carefully guarded by the different preparations of opium or other drugs. During these troubled times it was necessary to support her life by nutrient enemata, which answered admirably. She vomited blood, never in large quantities, but on several occasions the vomit was the colour of coffee grounds, denoting the presence of blood acted upon by the gastric juice.

After six months of distress and suffering, she died, emaciated to the bone; and in her case we found the entire mucous surface of the stomach to be the seat of cicatricial tissue. I presume that the entire stomach, at one time or other, had been ulcerated; its walls were thickened by inflammatory exudations, so much so, that at first sight it appeared as if it must be from the presence of malignant infiltration. Doctor Vincent Harris, of St. Bartholomew's, has very kindly made a careful examination of this remarkable stomach, and his report enables me to state with confidence that the disease was of inflammatory nature. No new growth could be detected. The viscus is shrunken and contracted to the last degree, and as a digestive apparatus is useless.

Mark you, this is an extreme case. I doubt if you will ever again see a stomach so contracted; but it answers my purpose to-day in bringing before you all the important symptoms which characterise ulceration of the stomach. These symptoms, being pain coming on generally after food, often passing through to the back; more or less constant vomiting, coming on at no particular time, sometimes the vomit being large and consisting principally of an acid watery fluid, at others of a more frothy fermented looking stuff, in which we can usually find sarcinae.

There is often a modified form of sickness, known to us as "water brash," a trying symptom marked by the sudden rising into the mouth of a watery fluid, often intensely acid.

Again, we must enquire as to the presence of blood in the vomited matter; it is not always in large quantity, more often in such amount as would slowly ooze from an abraded surface, and subsequently become darkened by the fluids of the stomach.

The third case, with its long history, extending as it does over more than seven years, is one of the greatest interest. The patient, a gentleman aged 42, before being seen by me, had suffered from severe *dyspepsia* for about four years. His symptoms were briefly, extreme pain after food, vomiting, and water brash. He would be better for a few months, and then all symptoms returned. He was more or less under my direct notice for two years, during the greater part of which time he was confined to bed, being treated for ulceration of the stomach. Six weeks before death all symptoms had left, he gained flesh, and weighed more than at any previous period of his life. One day, turning round suddenly to speak to some one entering the room, he felt a severe pain over the region of the stomach. Collapse speedily ensued, temperature being sub-normal; death occurring within twenty-four hours. *Post-mortem*—The cicatrix of a healed ulcer was found to have been torn across.

We have here the symptoms of bad dyspepsia, lasting year after year; the very length of the history would, at first sight, seem almost to forbid the diagnosis of any organic lesion. But yet when these symptoms were carefully sifted, I could find but little to indicate that they had varied much in severity; during the entire period this patient had suffered intensely from stomach pain, he had had constant attacts of vomiting, had suffered almost as constantly from acid eructations and "water brash." On only one occasion had blood in any quantity been thrown up, but I noticed by help of the microscope, that on many occasions there were small quantities of blood in the matters vomited. The important point in such a case, is to determine whether an illness, extending over seven years, could be caused from its commencement *by* ulceration, or whether, on the other hand, the *ulceration* had resulted from faulty digestion giving rise to pains of dyspeptic character.

To help me in this enquiry I have the stomach before me, and the evidence of this organ pointed conclusively, in my opinion, to the fact that ulceration had existed for

long, the whole texture in the immediate neighbourhood of the pyloric orifice being completely honey-combed by the cicatrices of old healed ulcers. I counted twenty or more of these cicatrices.

It is generally assumed that when we have a case before us with all the symptoms of ulceration extending over a length of time that such ulceration is of great extent, involving a large tract of stomach-wall, but here the ulceration was of the follicular kind, attacking the glandular follicles, which you are aware, lie in great number round the pylorus. We learn then, from examining these three cases, that it is certain that patients may die suddenly from the effects of a small perforating ulcer of the stomach, and that the symptoms premonitory of such serious lesion are not more grave than those of simple dyspepsia. We further learn that ulceration may extend over a long period of time, and that if rest be given to the stomach, these follicular ulcers show a tendency to heal, but that even with much organic lesion the symptoms need not be of the greatest severity, need not be more than so-called dyspepsia.

I should like now to give you a few short notes of another case, which bears on our subject.

A short time ago I was consulted by a young lady, of 30 years of age. She told me that for the past three months she had suffered almost incessantly from stomach pain, which was increasing in severity, and much worse after taking food. She had been occasionally sick, had had much constipation, had lost flesh, and was altogether very miserable about herself. As regards her treatment before seeing me, I need say but little. The case had been looked upon from the first as simple dyspepsia, consequent on constipation, and the patient had been freely treated by purging.

On making careful examination, and baring the skin over the stomach, I noticed rather more bulging than normal, and there was more peristaltic action than is seen in health. A tender spot over the epigastric region could be felt. My advice was to go home and go to bed for at least a month. To take a few drops of laudanum with bi-carbonate of soda, and have no food but milk.

The bowels to be kept open by soap and water enemata.

From this time nothing could have been more satisfactory than the progress made: the tongue cleaned, appetite returned, pain was gone. The bowels were freely relieved, with but the gentle stimulus of the lavement. Within a month the patient was practically well.

Now, was such a case simple Dyspepsia? I think not. The trouble was probably due to lesion of stomach-wall. I would advise you to treat your cases of *pronounced* dyspepsia, with a strict hand. If the dyspepsia does not yield to ordinary treatment within a week or so do not hesitate to regard it as probably due to lesion of the stomach-walls. If such lesion be of the nature of ulcer, then treat it as you would an ulcer on an exposed part of the body; because it lies on the mucous surface of the stomach-wall, and so hidden from view, there is no reason why you should not make use of these common sense principles which should occur to the veriest tyro in medicine, if the lesion were visible. It is difficult to realise that such a serious disease as ulcer of the stomach can exist, and give rise to little or no symptoms, but we know as a fact that it may. Recognising this truth, we should also feel that the sooner such a disease is placed under appropriate treatment the sooner we may hope to cure our patients. If we wait until we find a so-called pathognomonic symptom—for instance, hæmorrhage—or, indeed, if we wait until we see all the aggravated symptoms described in our text-books as occurring with ulcer, I am afraid your chance of benefiting patients is quickly reaching its vanishing point. I find one of our best authorities writes that the diagnosis of ulcer cannot be clenched until we see hæmorrhage—until we have ocular demonstration of the presence of blood in the matters vomited. For my part, I do not recommend your waiting until this fact is brought prominently before you.

*(To be continued).*

## PHILOSOPHIA MEDICI.

### REFLECTIONS AND NOTES

By Walter Moxon.

1857 to 1869.

IX.

It is the Press that governs now—at least, the public conscience is in the keeping of the Press. This form of government has this in advantage over the best form of popular assembly—that the heat of debate, and the spirit of personal opposition, which the sight of your opponent creates, does not so directly weigh, does not influence the deliberations; and so a certain time is gained in statement and consideration of each other's opinions. This is especially true of the weekly Press. But all this is very adverse to readiness or decision. The Prussian purely personal and tyrannical system has beaten the French half-parliamentary system, and would laugh at ours. All I have written here is to be measured by the assumption there is in it, that any governing power desires, or can desire abstract right. This cannot be any more than the Chemistry and Anti-chemistry of life could reach a balance and cease their conflict, without life ceasing with them. Here, too, is a sort of conscious polarity different from the Poles.

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Those who are not tempted should guide, as in the case of Ulysses and his plug-eared sailors. Those who did not hear the sirens made safe the ship. He who did, wise as he was, would have madly gone with them all to destruction.

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There are two ways of regarding a blue-bottle. A sense way and an intellectual way. In the first, you revolt from him as defiled by the nastiness of what it is his function to bring back into life. In the second, you

admire the restoration to life of such revolting putrescence as you know him to frequent, and you can respect his power of restoration the more, in seeing from what decay he makes so bright and clean and active and gay a body as his own. So with many people you meet.

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I have weakness enough to feel for weaker than I. Ought I to thank God for this weakness, or to harden myself and rise out of my own remains to condemn others?

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If you learn, you either form your mind to the new learning or form the new learning to your mind. If you watch yourself over any large scope of view laid before your mind you will be sensible of this effort.

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Questions are the true germs of instruction, and more people fail of knowledge from not having questions than from not having answers. You see, I want to shift so that the questioner be the teacher.

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Be natural and you never need fear at what you know you are, for Nature will bear the responsibility of you.

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The incomprehensibly complex mechanism of the blush of what we call shame. But perhaps if a man could comprehend all that mechanism he would no longer be ashamed enough to blush.

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How strongly the difference between moral and ethical law is brought out by the refusal of the French and Luxembourgers to allow the wounded of the Prussians to be carried back through Luxembourg. The object of all the humanitarians must be to save the individual's conscience from the poison there would be in his firing on the helpless or the benevolent. It is quite another thing when they want to ease their over-burdened lines of rail. Thus, then, what determines the act of the individual cannot weigh with the nation.

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Utter no thanks that condemn others, or you poison your purest spring.

# Sport.

## RUGBY FOOTBALL.

### SEASON 1887-88.

As the football season has once more drawn to a close, a brief summary of what we have done, and what we have not done, is necessary to chronicle the end of a most paradoxical season, bristling as it does with success, with a certain number of failures to make the successes more apparent.

First of all, we must make a few remarks on the card of fixtures which we played during the past season, and must begin with an argument.

We have plenty of good individual talent at Guy's, enough to make a first-class team, if we can only get the good men to play regularly for us, instead of playing for some of the bigger clubs. The only way to induce them to stick to their hospital is to arrange a first-class card of fixtures, and so give them a chance of getting as good games with us as with any other club. By this means we might play our cup team all through the season, which would of course give us three times the chance of gaining the coveted trophy, than if we got it together three weeks before the ties, as is usually the case in most hospitals. Our captain, A. D. Fripp, when he was secretary, evidently fully recognised the forcible truth of this argument, and by dint of hard work got on the strongest card any hospital has had of late years. That the plan worked to a very large extent is certain, although some of our men left gaps here and there in their attendance with our team. But we may safely conclude that it will work still better next season, and our team, to a man, will stick to us from the first match to the last.

In briefly running through the card, the first point of notice is the Yorkshire tour, which is placed upon record as the first one Guy's has had. It was undoubtedly a success, as although we lost rather heavily against Bradford, yet we showed up remarkably well against Wakefield Trinity; besides which, we had a holiday of three most enjoyable days. The next remarkable achievement is the victory over the London Scottish, who had their regular team, with the exception of McLagan. Our team probably played better in this match than in any other during the season. Then come the two matches which took the breath out of most of us. The first one being the fearful licking we got from the Old Leysians, which can only be explained by our having played against East Sheen the day before; and the second being the decided victory we gained over a fairly strong team of Blackheath. These two matches, coming within a day of each other, completely upset all ideas about our form for the Thomas's match.

We must here mention, by the way, that on January 21st, 1888, we sent out for the first time on record in Guy's three teams, the first two being victorious against Blackheath and the Saracens, and third losing against Saracens II. This may be considered as a great feat.

Then came the long-looked-forward-to match with St. Thomas's Hospital, when we all went on to the ground confident of success and satisfied with our capability of winning, and yet came off the field beaten, and, indeed, pretty thoroughly beaten too, for, although a dropped goal to a try sounds rather lucky, yet it must be taken into consideration that for almost half the game Thomas's played one short in the scrimmage and yet shoved us, and also that one of their three-quarters was little better than ourselves. So that we have really very little right to say that Thomas's had a lucky win, but rather that we did not play up to our expected form. It was a cruel blow for us to be beaten, especially as we probably placed on the field the strongest team we have had for a good many years, and the prospect of winning was so bright; and after it was over we could only make the best job of

it and resolve to do better next time, at the same time wishing Thomas's luck in the rest of their matches, and congratulating them when they eventually won the cup for the first time in ten years.

After the Cup match, most of the interest in Rugby football dropped, and, indeed, we only played two more matches before the close of the season, being beaten badly by Oxford because we took down such a bad team.

A very favourable ending to the season was the Smoking Concert, held on Saturday, Mar. 17th, which was a grand success, there being over two-hundred and fifty men there, and the programme being a long way above average.

We played twenty games, of which we won twelve, lost seven, and drew one.

Goals obtained, 16; goals lost, 15; tries obtained, 32; tries lost, 15; points obtained, 80; points lost, 60.

The following is a list of the matches played with their results:—

| Date. | Against Whom. | Result. | Obtained G. | Obtained T. | Lost G. | Lost T. |
|---|---|---|---|---|---|---|
| Oct. 8 | Old Merchant Taylors ... | lost ... | 0 | 0 | 2 | 1 |
| „ 15 | Kent Rovers ... ... | drawn ... | 0 | 1 | 0 | 1 |
| „ 22 | Croydon ... ... ... | won ... | 1 | 0 | 0 | 0 |
| „ 29 | Clapham Rovers ... ... | won ... | 2 | 2 | 0 | 0 |
| Nov. 5 | Middlesex Wanderers ... | won ... | 2 | 2 | 1 | 2 |
| „ 12 | Saracens ... ... ... | won ... | 2 | 4 | 0 | 0 |
| „ 19 | Bradford ... ... ... | lost ... | 0 | 1 | 2 | 2 |
| „ 21 | Wakefield Trinity ... | lost ... | 0 | 1 | 1 | 0 |
| „ 26 | Dulwich College ... ... | won ... | 0 | 2 | 0 | 0 |
| Dec. 3 | R.M.C., Sandhurst ... | lost ... | 0 | 0 | 2 | 1 |
| „ 10 | Queen's ... ... ... | won ... | 1 | 2 | 0 | 0 |
| „ 17 | Rosslyn Park ... ... | won ... | 1 | 1 | 0 | 1 |
| Jan. 7 | London Scottish... ... | won ... | 2 | 0 | 0 | 1 |
| „ 12 | Cambridge Wanderers ... | won ... | 2 | 4 | 0 | 1 |
| „ 18 | East Sheen ... ... | won ... | 1 | 4 | 0 | 0 |
| „ 19 | Old Leysians ... ... | lost ... | 1 | 0 | 4 | 3 |
| „ 21 | Blackheath ... ... | won ... | 1 | 2 | 0 | 0 |
| „ 27 | St. Thomas's Hospital ... | lost ... | 0 | 1 | 1 | 0 |
| Feb. 11 | Oxford University ... | lost ... | 0 | 0 | 2 | 2 |
| „ 18 | Sydenham ... ... | won ... | 0 | 5 | 0 | 0 |

The following is the Cup team and reserves, with the number of matches they played in throughout the season:—

| | | | |
|---|---|---|---|
| J. H. Bryant ... ... | 20 | A. Allport ... ... | 14 |
| N. Instone ... ... | 20 | H. Wilks ... ... | 14 |
| H. G. Steele ... ... | 19 | * G. M. Pratt ... | 12 |
| S. S. Wallis ... ... | 18 | W. G. Mitchell ... | 11 |
| W. G. Rogers ... | 18 | H. B. Rygate ... | 11 |
| A. D. Fripp (capt.) ... | 17 | W. Bligh ... ... | 11 |
| J. Fawcett ... ... | 16 | * W. C. Swayne ... | 8 |
| H. L. Evans ... ... | 15 | H. M. Jordan ... | 7 |
| * C. J. Prime ... ... | 15 | F. G. Swayne ... | 5 |

* Reserves.

The second fifteen have had rather a disastrous season, though through no fault of their own. They have played nine matches, out of which they won three, lost four, and drew two. All the rest of the matches, amounting to thirteen, were scratched by the opposing clubs.

The second team was a fairly strong one, and had they played all their matches would probably have come out with flying colours.

Respecting our prospects for next season, they are by no means dull. The card will be as strong, if not stronger, than the one we have just finished.

We are losing three valuable three-quarters in H. M. Jordan, H. L. Evans, and C. J. Prime, so that W. G. Mitchell will be our only one left, unless H. Barr, of the second team, develops into better form. With the exception of these three, we are losing no one else except A. D. Fripp, who has served respectively as secretary and captain, and is now out of his year. Everybody is as familiar with the energy and good judgment of this popular captain as they are with the sound and hard game he plays, so it is not necessary to eulogise on the good he has done the football club, but suffice it to say that through his work the standard of Guy's football has risen considerably, and we may now take a much higher rank amongst other clubs than we did a season ago.

A. ALLPORT, *Hon. Sec., 1887-88.*

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A Smoking Concert, in connection with the Football Club, was held on Saturday, March 17th, at the "Falstaff," Eastcheap. The attendance of men was large, and at one time could not have been less than 250. At eight o'clock Mr. Durham took the chair, and business was commenced at once by an overture on the piano, by Mr. Robley Browne; followed by a very clever rendering of "Lord Dundreary," by Mr. J. C. Bates. Mr. C. C. Clark came next with an imitation of MacDermott in "Always the same," which was encored; and then Mr. Sydney Pound gave a comic recitation, entitled "Jim Adams." Mr. F. Edgar followed with "I stood just so" and "Later on." He made way for Mr. Elliott, who recited the "Settler's story." Mr. G. R. Montague gave "I'll never love a woman any more," and for an encore a rendering (entirely his own) of "Excelsior." These two may fairly be described as the funniest performances of the evening. Mr. F. Halse Francis gave "The charge of the light brigade." Mr. J. C. Bates, with a "Sneezing serenade" and "Get out," brought the first part of the programme to a finish. After an interval the audience resumed their seats and listened to what was undoubtedly the success of the evening, a banjo duet, with piano accompaniment, by the Brothers Tilley, who were encored twice. Mr. F. Edgar then gave "No matter," and Mr. G. R. Montague followed with the ever-popular "Kilaloo" and "You'll know what it is to suffer." The Brothers Tilley once more obliged with another banjo duet, and Mr. C. C. Clark sang "Jubilation day" and "The wild wild west of London." The National Anthem then brought the evening to a close. We must congratulate the football club upon the entire success of the evening, and also on securing the services of Mr. Durham as chairman. This undoubtedly accounted for the large attendance of Guy's men, which we may say is unprecedented at a Guy's smoking concert.

**Guy's Hospital Gazette,**

*APRIL 28, 1888.*

## ANEURYSM OF THE AORTA.

Notes of a Clinical Lecture, by Dr. Goodhart.

The case lectured on was a patient aged 51, now in John Ward, with an aneurysm of the arch of the aorta, which presents a pulsating swelling behind the costo-sternal junction of the 1st and 2nd ribs on the left side. It probably involves the whole circumference of the vessel near the left subclavian.

Attention was first called to the position of aneurysm of the arch as a matter of importance in explaining the symptoms and in aiding the prognosis. When on the right side of the arch (often then erroneously thought to be innominate aneurysm) the tendency is for the growth of the sac to be forward and outward. No important structures are then involved; the sac may grow to an enormous size, and the patient live several years. The chief trouble in such cases is the pain produced by the erosion of the ribs and sternum, and the chief risk is that of rupture, which may threaten externally.

On the left side, where they less commonly present as pulsating tumours, important structures are adjacent and often involved. The recurrent laryngeal nerve becomes implicated and leads to unilateral paralysis of larynx, the bronchus is narrowed from pressure, and a peculiar form of destructive pneumonia results; and sometimes a communication becomes established between the sac and the pulmonary artery.

The difficulty of diagnosing this destructive pneumonia was here alluded to; and the reason offered, that the tidal wave is so diminished by the pressure upon the bronchus, that the respiratory rustle is insufficient to produce physical signs. An explanation, it was insisted, which must be applied not only to this affection, but in all manner of pulmonary complaints, if we would properly understand their variety of physical signs and their ofttimes startling rapidity of variation.

The *treatment* of aortic aneurysm was then taken up; and this, it was maintained, is based, and not altogether accurately so, on an axiom of Surgery, or what appears to be such, that a *sac full of clot* is equivalent to a *cure*. But what is practically true of aneurysms of the extremities, is not true for the arch of the aorta, because the conditions are not the same.

An aneurysm of the arch of the aorta is always a more or less general disease of the arch; the orifice of the sac is generally large, even if the sac happens to be of the kind called sacculated; and it is impossible to obtain in this situation anything approximating to the sluggish flow that is produced after ligature of an artery of one of the limbs. Thus it is that with plenty of clot in the sac, the aneurysm is generally growing all the time in one direction or another, and a cured aneurysm of this part is one of the rarest things possible. It has been said that the *post mortem* room is not the place to look for cures. But such a retort was never more unhappy than when applied to aneurysm, because it is well known that atheroma is seldom a matter of a single accidental patch. And the atheromatous patient so frequently comes to his end in one way or another, that the dead-house ought to furnish abundant evidence of cure of aortic aneurysm, did it occur. Whereas, it furnishes plenty of proof that means pursued to promote coagulation have often no appreciable effect.

However, the aim of treatment has ever been so to slow the circulation and increase the coagulable power of the blood, as to lead to clotting in the sac. And it must be admitted that if it has but feeble achievement, it is nevertheless all that can be attempted.

The means that have been adopted and added to since Valsalva's day, have been *bleeding—the recumbent posture—starvation*—and the *administration of drugs*. These things, one and all, are supposed to slow the current, reduce the volume of the blood, reduce the blood-pressure, and increase the coagulability of the blood.

Dr. Goodhart insisted strongly on the insufficiency of the evidence, that these means have any direct power to promote clotting. From his experience in the *post mortem* room, did he wish to promote thrombosis of the kind required—which kind is best represented by the state of things present in pulmonary embolism—he would take the healthiest, fullest-blooded person to be found, with a broken leg, or for whom some cutting operation was requisite, which should throw the patient on his back without any previous preparation, and perhaps excite a moderate pyrexia; and there would be a risk in prospect of thrombosis occurring. It is true that people long in bed with wasting diseases do supply a large number of cases of thrombosis and embolism; but the clot is mostly a poor sort of affair, and not one that any pathologist would invite to cure an aneurysm.

The means adopted in the present day to the ends enumerated are chiefly these: rest in bed; a restricted diet of ten ounces of solids and eight ounces of fluid every 24 hours (Joliffe Tufnell), and requisite doses of Iodide of Potassium.

There is clinical evidence in abundance of the value of these means in the relief of pain; the diminution of pulsation; and the apparent hardening of the sac, if this comes near the surface. If these cases be kept under observation for no more than a few weeks, it might readily be supposed that a good deal had been done towards a *cure*. But a more impartial observation must compel the admission that these are all signs and symptoms that vary from day to day, under *any* treatment, and the Lecturer has repeatedly seen cases in the *post-mortem* room that were supposed, on such data, to be doing well, when either there was no saving clot in the sac at all, or while the one sac was thus temporarily quiescent and lamination progressing, another sac had been expanding and had ruptured.

The fact is we don't know what is the natural history of aneurysm in the matter of growth; but Dr. Goodhart has found in his experience that many go on for several years if important structures are not implicated, and if the sufferers are chary of exertion. On the other hand, he is also sure that many a case of aneurysm rapidly goes to pieces under injudicious dieting. The tissues will not stand so severe a Banting; and very fortunately, as he thinks, many patients will not submit to it.

What, then, can be done for these cases? Is there nothing? By no means. An aneurysm of the arch of the aorta is *incurable*, just as much as regurgitant disease of the aortic valves is incurable. The patient must therefore live as quiet a life as possible, with plenty of sleep, and a moderate but a good diet. And supposing that any pressure symptoms arise, such as brassy cough, inefficient expansion of one lung, or pain, unquestionable benefit is often derived from a course of Iodide of Potassium; not at all by promoting coagulation directly, but because it reduces arterial tension, and thus tends to diminish the pressure in the sac. No doubt, too, it may have some effect in controlling the sub-inflammatory processes that go on in and around the wall. It must therefore be given in doses sufficiently large to act upon the circulation; and this will vary for different cases: in one it may be ten-grain doses twice or three times a day, in others twenty or thirty. In special cases, with severe symptoms, absolute rest in bed is no doubt also beneficial; and for that matter, and for the same purpose, a month or six weeks of restricted diet is a treatment to

which no exception can be taken. It is the extension of this severe dietetic treatment over long periods in the vain hope of obtaining a *cure*, that Dr. Goodhart considers to be detrimental to the patient, and based upon unsound physiology.

## GASTRIC ULCERATION, WITH SPECIAL REFERENCE TO DYSPEPSIA.

Lecture to Clinical Assistants at the West London Hospital, by Donald W. C. Hood, M.D., Cantab., Physician to the Hospital.

(*Concluded.*)

It stands to reason that a small ulcer may be present and give rise to a great deal of irritation and stomach disturbance, without eating into such a vessel as will produce much hæmorrhage; the blood that oozes from an open sore will become digested in the same way as *food swallowed by mouth.*

When you are closely watching cases of gastric ulcer you will note that frequently the stomach irritation comes on, as it were, in great waves of intensity. For days the viscus is so irritable that there is almost constant vomiting; do all you may, you will have difficulty in controlling it, and your best plan will be to give the stomach complete rest, meanwhile feeding your patient by the bowel.

You will find, happily, that there are calms as well, and week after week may pass and there will be no vomit, no pain.

Hæmorrhage is an undoubted symptom of great value in making our diagnosis, but it is a symptom which requires caution and well-weighing before being looked upon as absolutely deciding the diagnosis.

We had before us, in Hull Ward, some months ago, an excellent case for study, a case the like of which you will often meet with.

A young, delicate, weak, anæmic, waxy-looking girl was admitted. She had been suffering from dyspepsia for some time. One morning, after suffering rather more than usual, she vomited a large quantity of blood—pints, according to her own description; but even discounting this statement, it was evident that the girl had lost a large quantity of blood. Her symptoms before admission had been those of dyspepsia; she had had pain over the region of the stomach, a pain which was *aggravated by food; she had been sick at times;* had no appetite; her bowels were obstinately constipated, and she told us that she sometimes passed a week without having proper relief. The catamenia were, moreover, scanty and deficient in colour, appearing about every six weeks.

You may say that here we have all the typical symptoms of ulcer. There is the stomach pain, the indigestion, the loaded bowel, and the hæmorrhage.

I doubt whether we should be right in accounting for such hæmorrhage by the presence of an ulcer. I think you should look upon such cases as due to a gorged state of stomach mucous membrane, the bleeding being akin to that seen in epistaxis. If you analyse the symptoms closely you will find a difference to those seen with gastric ulcer; the constipation is more decided, more prolonged, and the blood is more deficient in its colouring matter. Moreover, you will find these cases benefited by a different course of treatment than that which you will find most useful in gastric ulceration. Again, those cases are very common, the majority recover; this would hardly be the case if a large vessel were eroded by an ulcer. You must make use of the same bland food, and you must enjoin the same rest; but added to these important factors, you must make careful use of aperients, remove the portal and gastric congestion, and you will establish healthy digestion. There is no better remedy than the sulphate of magnesia, combined, after a few days, with a few drops of perchloride of iron.

I would first enforce upon you all the importance of closely examining cases of dyspepsia. Try and arrive at *the fountain head of the dyspeptic symptoms.* Do not at once consider because a patient complains of indigestion, pain after food, and the like, that the stomach *per se* is at fault. Do not order your bismuth, your charcoal biscuits, your pepsin, without being assured that it is the digestion itself which is causing the inconvenience.

Remember, that almost all diseases have their peculiar dyspepsia. Thus you will find that the patient whose liver is strained by over-rich food, or by alcohol, suffers from a dyspepsia which is peculiar, *i.e.*, has symptoms peculiar to itself and requiring its specific remedies. You will find the weak anæmic woman who complains so bitterly of indigestion is a dyspeptic on account of her debility. Your next case, who comes to you complaining of indigestion, may be the subject of an inefficient mitral valve; her symptoms in their infancy may not be referable to the ailing organ, but are expressed in a faulty digestion. The same with the varieties of renal disease, all will more or less make their first complaint from the stomach, and it is in your power, and your duty, to examine into the functional activity of each organ before making up your mind as to the cause of the gastric trouble.

Perhaps your greatest difficulty as regards diagnosis will lie in sifting the complaints of the nervous dyspeptic. In these cases you must be doubly on your guard: their class, their kind, is legion. Investigate closely all their symptoms; find out whether the sickness and pain are *constant or not; whether change of scene or diet does good;* whether the pain precedes or comes after food. You will have to study the various symptoms one by one, and weigh well their value. You will find this dyspepsia dependant upon nerve instability common among the more intellectual members of society, also with restless excitable women.

In some cases you will find the stomach pain most severe. It is a true stomach neuralgia, and differs from

the pain of ulcer by being usually relieved by a little warm food taken with stimulants. When there is an ulcer in the stomach wall, the pain is almost invariably intensified by taking food, but not always so. In one case under my care, in which the diagnosis of ulcer was verified by an examination, the great gnawing pain was often relieved by food, and the pain seemed certainly to be worse when the stomach was empty. You may, however, look upon this as being an exception to the more ordinary rule.

Pray bear in mind that the Ulcer of the Stomach, whether it be of the small perforating variety or the larger spreading kind, must have a beginning, and such beginning, may be, is only marked by dyspeptic symptoms of a not very severe type. You will be told that the dyspeptic symptoms led up to the actual lesion of stomach coat, that in fact the dyspepsia has been the cause, and not the consequence of the ulcer. Do not believe it.

Remember the case I have shewn you; carry in your minds the sharply cut ulcer which stands so clearly before you on our table this afternoon; remember that the patient who paid the penalty for such disease suffered but little, only from indigestion, *but* her *indigestion* killed her.

I say then, sift with the utmost care the symptoms of all the dyspeptics who come to consult you; examine carefully the working power of every organ of the body—in many cases the cause for dyspepsia will be at once apparent. Be very, very chary before you ascribe their sufferings to chemical causes. I mean, to inefficient conditions of the gastric juices. The moment you make up your mind that the indigestion is due to actual lesion, place your patient in the most favourable conditions for recovery. You know what you would do if the ulcer was on hand or foot. In the stomach you have no such means for that perfect repose which, as the veriest beginner in medicine would naturally suggest towards healing but an excoriation of surface. Hence take all the greater care. Insist upon the recumbent posture in bed; insist upon the blandest foods. Under some such scheme you will often find the dyspeptic symptoms vanish within a few days. If the symptoms have been present for long, if, in fact, an ulcer has existed for some time, your treatment will be required for a much longer period.

In a typical ideal case you will have to carry out some such course as the following one:—Try and keep the patient on milk alone, or at most, add a little farinaceous food to be well mixed with the milk, which is often better digested if given after it has been boiled. If desirable, you may also order good, nutritious broths and soups, but commence with milk alone. As the pain and irritability of the stomach diminish, gradually enlarge the borders of your dietary, selecting the most digestible meats. If stimulants are required, a little pure old cognac is perhaps the most suitable. For medicines, ring the changes on the different preparations of opium; you will find enormous advantage from a very free use of opium. I am accustomed to attribute to opium, in these cases, an almost specific effect. We know of what value opium is in the treatment of superficial ulcerated surfaces. Why should it not also have some effect when the ulcer is internal? I believe it has. Do not be afraid of pushing it freely. Do not think of its constipating results, you can easily overcome them with the mildest aperient. I like to commence with opium in a solid form, ordering generally half a grain every four hours. Apart from the direct local action of opium, you will find it of much use in controlling the appetite of the patient, and in rendering the restraint of bed less irksome.

The excessive irritability of stomach which frequently comes on with storm-like force, is best treated by physiological rest. Give no food at all by mouth, let the patient take only iced water. Apply a little counter irritation,—as blistering fluid, or liniment of iodine over the region of the stomach. Support the strength by feeding with nutrient enemata; you give much help in this way. As nutrient enemata, I think you will find Liebig Extract, with a little brandy and water, as good as any; but you can now obtain from any good Chemist specially prepared peptonised foods.

You will often find the acidity a great trouble, and you have to use alkalies. Sometimes an alkaline effervescing draught will give relief; at others, a simple draught of Bi-carbonate of Soda is more effectual. Bismuth, again, is a remedy which proves, in some hands, of great value; its effects, you know, are thought to be mainly local. I have seen bismuth retained in the stomach for some days. A patient was under special treatment for ulcer, and had been recommended to take bismuth in large teaspoonful doses. Some days after the treatment had been stopped there was an uncomfortable feeling of heaviness over the epigastric region; it was followed by severe sickness, and a large semi-solid paste of bismuth and mucus was vomited; the mass must have weighed at least half-a-pound.

You will doubtless hear, washing the stomach out with water impregnated with alkaline salts advanced as a successful treatment. In pure cases of gastric ulcer, I doubt the advantage of such treatment. On the other hand, you may give much relief by this method of treatment when the stomach is much enlarged. In these cases you can often see the outline of the enlarged stomach. The peristaltic movement of the viscus should at once attract your attention.

The cases are more often due to pyloric obstruction; but in symptoms, at first, they may closely simulate an ulcer, and, of course, an ulcer may be present, and by its presence at the pylorus, give rise to irritation, which may subsequently produce contraction of that orifice. The effect of dilatation is weakness of the organ; the larger and weaker the stomach, the greater difficulty is there to the passage of food through the pylorus. The primary disease sets up an action which works in a vicious circle. As a result the stomach enlarges and hangs lower than is normally the case. This is increased

by the erect posture; food collects in the most dependent part, becomes decomposed, and gives rise to all the subsequent annoyances. In these cases washing out the semi-decomposed remnants of food is nearly akin to drawing off putrid urine from the bladder, and brings much comfort to the patient.

You can obtain much good by insisting upon the patient keeping the recumbent position, especially after food has been taken. Under such treatment I have seen the stomach gradually contract, and that too in a case in which the pyloric obstruction must have been great.

## NOTES ON PATHOLOGY.

By Dr. R. E. Carrington.

*(Continued.)*

### KIDNEY.

#### Surgical Kidney.

Better called *acute suppurative nephritis*. Bright's disease never leads to suppuration. This kidney results from the inflammatory condition of the urinary passages, and is secondary to—

1. Cystitis, calculus vesicæ, and enlarged prostate.
2. Cystitis, the result of spinal disease.
3. Or it is pyæmic, and the cause of the pyæmia is generally to be found in some operation on the pelvic organs. The pyæmia may also be from bone disease.

*Description.*

1. *Size* is increased.
2. *Capsule* strips readily.
3. *Surface* is smooth, but dotted all over with small yellow points, corresponding to minute abscesses.
4. On *Section*, cortex is swollen and kidney is yellowish white in colour. If many sections are made the yellow dot on the surface is seen to correspond to the linear collection of pus corpuscles passing in a radiating way through the cones and cortex. This can only be made out by continuous sections on account of the tortuous arrangements of the tubes of the cortex.

The most characteristic appearance is the presence in the cortex of linear collections of pus arranged in a radiating manner, and sometimes these collections in a lucky section will be found to communicate with the yellow spot on the surface.

*Microscopically.*

The chief point is the recognition of the collection of leucocytes in the midst of the renal substance in which the tubes are filled with altered epithelium. It seems probable that suppurative nephritis is not of necessity fatal. Cases are met with in which there has been antecedent obstruction to the outflow of urine, *e.g.*, a calculus, which had passed away or been removed; and in these the connective tissue around the kidney has been found greatly thickened, the capsule also greatly thickened and adherent to the connective tissue, so that in removing such kidneys the capsule has remained behind, and the surface has seemed scarred.

Of course as it is often due to urinary obstruction, it is frequently associated with "dilated pelvis and calyces," "consecutive Bright's disease," and "pyonephrosis."

#### Malignant Disease of Kidneys.

*Varieties.*

i. Almost always *soft carcinoma (encephaloid)*.

ii. *Round-celled Sarcoma.* It is of interest that in sarcomata of the kidney in acute cases, striated muscular fibre has been made out (Path. Trans.).

iii. *Scirrhus*, *Epithelioma* and *Colloid*. These cancers are all very rare.

Malignant disease *occurs* in

1. *Children* under 5 years, who, according to Sir W. Roberts' figures, are especially liable.

2. *Adults*, from the age of 20 upwards.

In the vast majority of cases it is unilateral. It always begins in the cortex (Roberts) and in the renal epithelium; the c.t. being involved secondarily.

It may be *nodular* or *infiltrating*.

In the first case it will lead to irregularity in form, nodules of varying size projecting from the surface.

In the second case it causes uniform enlargement, the renal shape being maintained.

It is either *secondary* or *primary*.

When secondary it is part of a general dissemination of cancer, and, *per se*, is not of importance. It occurs in the form of scattered nodules.

As primary, it is seen in children and adults.

*Description.*

The kidney is always enlarged, frequently enormously so. Tumours weighing 30 lbs. have been taken from children; this is extreme, but the kidney generally weighs several pounds.

The *structure* of growth of the kidney is the same as that of carcinoma and sarcoma elsewhere, placed in the midst of healthy renal structure.

On cutting into the kidney it is found to be composed of large tracts of soft yellow cancerous material, in the midst of which large hæmorrhages, recent and old, are conspicuous.

Small portions of healthy renal substance may be met with.

The pelvis is nearly always affected, and the ureter blocked.

Secondary growths of the lumbar glands are met with most frequently, and increase the irregularity of the tumour. Secondary growths may be met with in any other organ.

As regards duration, there is discrepancy; but Roberts has found that it lasts longer than any other cancer. Probably an ordinary duration is *two years*.

The other kidney undergoes compensatory hypertrophy.

*(To be continued.)*

## PHAGEDÆNIC ULCERATION OF THE FACE SIMULATING CANCRUM ORIS.

Edward H—, æt. 3, was admitted to the Female Ward on February 18th, with a large sloughing sore occupying the posterior part of the right cheek and the vicinity of the ear: it measured 2¼ inches from before backwards, and 1½ from above downwards, and the lower third of the external ear had entirely disappeared, the aural canal being visible as a small opening, down which a probe could be passed directly inwards for one inch, impinging on bare bone.

The boy is one of a family of four, with good history, and no taint of syphilis. When 11 months old he had measles and has ever since suffered from right otorrhœa, which, however, is said not to have affected his general health much. About three weeks before admission he developed hooping cough, and during a paroxysm of coughing lost some blood from the right ear; soon after severe inflammation set in around that organ, and the parts quickly began to slough. Six days before admission he was seen in the surgery, when the slough presented a ragged, dirty-coloured appearance, and was extremely foul. As he could not be taken into the Childrens' Ward on account of the cough, he was treated as an outpatient, iron being administered internally, and nitric acid applied externally, every morning. The fœtor was thus considerably reduced, but the ulcerative process remained unchecked.

*On Admission.*—He was put on a liberal diet of beef tea and milk, and treated with ♏ x doses of perchloride of iron with syrup of Tolu every 4 hours, and a drachm of brandy every two; the slough at the same time being swabbed as freely as was deemed expedient with strong nitric acid and then dressed with iodoform. The child was in a very low condition, constantly moaning, without, apparently, sufficient energy to cry. Temperature 102°.

Notwithstanding treatment the sloughing process extended internally, and on the 22nd the measurements were 3 inches by 2½, although the posterior part began to take on a healthy action: on the 28th ulceration was still extending, having reached now within half-an-inch of the angle of the mouth; the right eye was closed on account of œdema, and a considerable piece of the lower maxilla exposed, devoid of its periosteum. The morning temperature ranged between 102° and 104° but returned to about normal in the evenings. Nitric acid treatment was now given up and the parts freely swabbed with perchloride of mercury, 1 in 500, and dressed with a weaker solution. Next day the surface was much cleaner, and on the following had taken on an altogether healthy appearance, with the exception of a small island, ½ inch by ¼, of diseased tissue.

The temperature still remained high, and on March 7th reached 105°, but this was probably due, partly at least, to the hooping cough. Mercurial treatment was kept up for a week, and subsequently simple dressings only were used, and the patient, from that time, has done uninterruptedly well.

The wound is now (April 14th) level with the surface and appears as a superficial strip ¼-inch broad, extending from the external meatus of the ear to within ⅝-inch of the angle of the mouth. This is prevented skinning over by the flow of saliva which trickles from numerous minute pores, and will necessitate a plastic operation.

The auditory canal is entirely obliterated and only the upper half of the pinna left, and the mouth can be opened fairly well, notwithstanding the adhesions of the right cheek, as the boy has always been encouraged to gnaw crusts of bread, which he does with evident satisfaction; his health is quite restored and he has gained 2½ lbs. in weight during the last week.

E. C. KINGSFORD, Bolton.

# Passim.

We are asked to state that the Summer Session opens on May 1st, commencing sharp at 9 a.m. with the Midwifery Lectures, the other Lectures following on as usual.

We have just received from the Medical Office a capital idea in the shape of a Students' Calendar for 1887-1888. This is its first trial, and it will doubtless be made more complete as time goes on. It will be of the greatest use to everyone, giving as it does not only the dates of the various examinations, but the latest date at which applications should be made for schedules for these latter, and also the date of application for appointments.

On looking over the February number of the Indian Medical Journal we come upon the following paragraph, which we reprint, thinking it may have some interest for our readers. It is satisfactory to observe that the appointments meet with the satisfaction of the military, the objections coming from the lay community. The value of their remarks is measured pretty well by the statement that experience proves that Sisters makes the best Nurses because they work for no remuneration whatever. We should like to know where they get their experience.

Military Nurses.—We are glad to learn that the India office authorities are determined to employ nurses, not proselytising sisters, in Military Hospitals in India. Some people evidently regard the appointment of nurses from a different stand point. The following appeared in the columns of our local lay contemporary. In the "Indian Notes from Home," which appeared in our issue of Wednesday, 1st February, are to be found the names of the two ladies—one from "Guy's" and the other from "Bartholomew's"—who have been appointed Lady Superintendents of the Nurses who are to work in the Military Hospitals at Umballa and Rawalpindi. We have already expressed our surprise, and it will probably have astonished some of our readers, to find that *two* have been appointed; for it was generally considered a "settled thing" that the Sisters of S. Denys, Warminster, were to carry on the work at Rawalpindi, under the superintendence of one of their own number. We believe the facts of the case to be as follows:—After tedious delays, caused by the refusal of the Home Government to come to a definite decision, His Excellency the Viceroy acceded to the urgent request of the promoter of the scheme—Lady Roberts—and appointed one of the S. Denys' Sisters, now in India, to the post of Superintendent of the Rawalpindi centre, it being understood that the rest of the Nurses would also be furnished by the community. This fact was, of course, notified to the Secretary of State: but he refused to sanction the appointment, and has elected two other ladies. We suppose that such high officials do not condescend to give their reasons; but it looks as if Lord Cross had selected this as a fitting occasion for teaching the Government out here that they are merely puppets. We may rest assured that the ladies selected are well trained, for the liberal terms advertised in "The Times" were such as to ensure a host of applications from well qualified Nurses. All past experience, however, proves that Sisters make the best Nurses. It stands to reason that this should be so, for Sisters work simply for the love of God and of their fellow creatures; they get *no remuneration whatever:* whereas the others accept such a post merely as a means of gaining a livelihood. We consider that the Secretary of State has treated both Lady Roberts and the Sisters very shabbily. The latter, we understand, were offered the post without any "seeking" on their part, accepted it, and are now rejected. The former was the promoter of the scheme, and she has also made herself responsible for collecting the funds for establishing "Homes of Rest" for the Nurses in the hills. Common courtesy, therefore, demanded that her wishes should have been complied with, unless there was some urgent grounds for refusing to accede to it. The only satisfactory thing that we can see in the whole affair is that the action of the Indian Government seems to have induced the Secretary of State to make a real move in the matter, instead of simply approving of the plan and putting it into a Downing Street pigeon hole.

We have received the following names of gentlemen who have passed in Medicine or Midwifery, or both, of the Final Examination for the License of the Royal College of Physicians. We are unable to specify the subject in which each gentleman has qualified, not having an official list to copy. For the same reason we are not able to ensure every name being present:—

J. L. Aymard.
H. P. Ainsworth.
W. G. Beyts.
J. V. Blachford.
W. G. Brett.
E. H. Brock.
W. J. Maillard.
M. J. Morgan.
F. J. Nisbet.
A. E. Poolman.
C. Price-Jones.
R. W. Rouw.

W. A. Cahill.
J. D. Cruickshank.
C. S. Davis.
J. Dodds-Price.
H. J. Holman.
E. M. Hearnden.
G. H. Metcalfe.
F. P. Sarjant.
W. C. Swayne.
J. M. Thorne.
C. G. Thorp.
T. Wilson-Smith.
T. N. Wright.
S. Woodhams.
T. R. Rolston.

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The following, we understand, have passed in Surgery at the Royal College of Surgeons :—

J. H. Harvey.
J. Lloyd Roberts.
G. Black.
J. C. Baines.
E. O. Newland.
T. O. Raw.
W. G. Thistle.
C. J. Fuller.
F. K. Holman.

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Next week we hope to have a complete list of the gentlemen who have passed their First and Second Conjoint Examinations.

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## NOTES FROM ABROAD.

To an English student German Universities present many points of interest, and some of similarity, to those existing in his own country, but in other respects there is a striking difference. In the mere matter of numbers the Germans are far in excess. We, in the United Kingdom, can enumerate only fourteen or fifteen corporate bodies claiming the title of University. Some of these, six or eight at the most, with their residential Colleges, their well-equipped laboratories, their numerous and affluent Professorships, and the style of man attending them, can be fitly ranked with the first on the Continent; others of them are either examining bodies, or, crippled by pecuniary difficulties, make feeble attempts to follow in the footsteps of the more wealthy Institutions.

In German-speaking countries there are thirty-seven complete Universities, and in all, as in England, there are different faculties, viz., the Medical, including Surgery, Medicine, Obstetrics, and the various specialties; the Legal, the Theological, the Philosophical, comprising Languages, History, and Music, Science in all its branches, and Agriculture.

On looking through the German University Calendar for the present year, one's attention is arrested by the imposing list of Professors, Ordinary and Extraordinary, and Assistants, many of the latter being comparatively young men of high mental calibre, who have already made their mark.

In Berlin there are forty-two Professors and fifty-four Assistants in Medical work, and each has made himself completely cognisant of some particular branch. This arrangement secures almost minute subdivision of the vast field of knowledge and exhaustive individual attention to all the bearings, practical and theoretical, of each subject—nay, more, it combines possibilities of research, the brilliant results of which we are well acquainted with.

It is difficult perhaps for us to realise how fully and effectively the plan is carried out; but when there are Professors of, and Assistants in, Diseases of the Nervous System, Diseases of Children, Electro- and Climato-Therapeutics, Syphilis, Otology, Laryngology, Phrenology, the vast scope of the Universities become more apparent, especially as the same system obtains in the other faculties. Still further, when there exists, as at Leipzig, a magnificent Physiological Laboratory, with Professor Ludwig as Director, a professorship of Histology, of Physiological and Pharmacological Chemistry, of Bacteriology, each subject, too, having its own building, its own special equipments, we must recognise that we have yet much to learn from the Germans. There are five Universities of great renown in Medicine, viz., Berlin, Vienna, Strasbourg, Halle, and Leipzig, and here are to be seen and heard those men who have indelibly associated their names with the present condition of Medical science. I allude to the great names of Virchow, Helmholz, Du Bois Reymond, and Koch, of Berlin; of Brücke and Billroth, of Vienna; of Recklinghausen and Kussmaul, of Strasbourg; of Ludwig, His, and Braune, of Leipsic; of Volkman, Eberth, and Hitzig, of Halle.

But it must not be forgotten that the conditions under which they have worked have been peculiarly favourable. The Universities are Government Institutions; they are State-endowed, and State-supported. From the public revenues the very buildings are erected, and each laboratory receives an annual subsidy, in some cases as much as £700 a year; and the Professors are relieved from much anxiety by the payment of a fixed income, sufficient to enable them to live comfortably, and are not hampered, as too often happens in England, by the necessity of obtaining a livelihood by private practice.

Somewhat different are the conditions in England. There the Universities were established by individuals who steadily kept the flame of knowledge bright in the dark middle ages, or the more modern ones owe their existence to the generous bequests of wealthy merchants, who, having but scant leisure to indulge in the pleasures of learning, fully appreciated their value for the generations to come. Too often are the laboratories imperfectly equipped, and the pecuniary means of pursuing original investigation not forthcoming, such aid as is afforded by the Government being totally inadequate. Still more, a foolish and destructive agitation has crippled English research, and compels those who would contribute to the solution of the most pressing problems of the day, to seek help and assistance from foreigners.

In some cases, too, in England the cost of the professional education is such, as often to prevent any but

those of good means to avail themselves of the opportunities, while here the fees are such as to invite a far more numerous class to enter the portals of learning; and hence we find that at Halle there are 1600 students, while at Berlin there are 3000–4000. The fees for the various courses of Anatomy, Physiology, Surgery, Medicine, &c., range from 10 to 18 shillings. In one of the northern Universities of Great Britain I am acquainted with, a practical laboratory course of Physiology cannot be obtained under £10, and so Physiology, as a practical science, languishes there.

One other point a stranger observes here, and that is the remarkable linguistic attainments of the Germans. From childhood they are taught four modern languages; and when I came here and went into the various clinics, I found the professors and assistants well able to give a good account of their work in English. It seems to me that there must be some radical defect in the school-training in England. It is still considered in many schools essential to a man of culture to write Ciceronian Latin or Attic Greek, while French or German are merely looked upon as subsidiary matters to be attended to when time serves. I look back with much regret upon the nine years spent in seeking to drag inspiration from the Gradus ad Parnassum, to grasp the eccentricities of the Cretic and of Greek Iambics, to follow the baleful image of the Binomial Theorem in the Integral Calculus, while French and German were treated with scant ceremony. I have heard with sorrow German spoken of as the language of science, and the Teutonic mind fondly hopes that it will one day be the language of commerce. One is astonished to learn that there are 60,000 Germans in London; and why? They are good linguists, they usually know three modern languages well; they are content with fewer luxuries than the English, and are possessed of unbounded perseverance. There is a story told of an assistant here, who, being convinced that tubercle was present, spent three months in looking over a number of sections from the same specimen, and succeeded at last in finding one bacillus! This is by the way.

We as a nation must look more closely into these facts, if we would maintain the lead in the struggle. The old ideas of classic attainments must give way to more modern necessities, and the State will be forced to consider how the Englishman can best compete with the German, for the condition of affairs has already reached that pass. As a first step, we must not rest with the mere establishment of Board Schools, but it will be necessary to institute a Ministry of Education, and the State will sooner or later be called upon to support more fully and liberally the existing Universities, and to enlarge their scope and equipments, and later on to found others. If not we shall find ourselves retrograding instead of progressing in the race of science and commerce.

A. H. TUBBY.

Halle, Germany.

# Review.

"TREATMENT OF SKIN DISEASES."

R. M. Simon, M.D. Cantab., M.R.C.P. (Guy's Hospital, 1872), Senior Assistant-Physician to the General Hospital, Birmingham. Cornish Brothers, Birmingham. Pp. 110.

The system of post-graduate tuition, when entrusted to properly-qualified teachers, has generally met with success and cordial appreciation by those for whose benefit it was originally devised. In a few instances, owing perhaps to want of care in the selection of subjects or to failure of judgment in the choice of lecturers, the system has been severely left alone by general practioners and senior students alike. But this unsatisfactory result has not been encountered in Birmingham; and in the small and unpretentious volume before us we have the key to the secret of success. The work consists for the most part of a reprint of the post-graduate lectures delivered by Dr. Simon, on the subject of the Treatment of the commoner forms of Skin Diseases, such as are met with every day in routine practice. A short but clear account is given of the etiology of each affection, and to this a more detailed description is added of the methods which the author has found from practical experience and careful comparison of the results obtained by other observers, to be the best means of dealing with them. Special instructions are given with respect to local treatment, and many small details are insisted upon which are too often passed over in the larger text-books, but which are in reality the very points upon which success or failure depend. The information supplied by these lectures is precisely that required by the busy practitioner, and their publication in the form of a neat and well-printed handbook will be welcome to many outside the circle of those to whom they were originally addressed.

## PHILOSOPHIA MEDICI.

A hard, critical nature that tears to strips what it does all it can to love, because, however beautiful and lovely, it must have in them what its poor reason calls "Truth." What is "Truth"?

As you go on in life you get to like things, not because they are all this and that good, which you hoped in youth they would be, but because they are not this and that bad which you in your zest never saw that they might be. It takes years to see the real bent of things and their dangers.

And yet with all that I have written about collective man, the best test of a good individual is that he never thinks in private what he wouldn't utter in public.

WALTER MOXON.

## THE HONEST BARGEE'S BRIGHT LOOK-OUT.

Early youth

Brought up on dripping,
Treacle and whipping,
Begging by day and a-thieving at night;
Winter at Wopping,
Autumn "a-hopping,"
Summer and Spring in a pitiful plight.

He chooses a profession

Instincts paternal,
Likewise maternal,
Protested, "With water we never *could* hold;"
Yet his erratic
Tastes were aquatic, [*gold.*
Sing hey! for the Thames and the barge *Mari-*

And takes the inevitable plunge.

Riding on tide-away,
Bearing his bride away,
Sweet honeymoon! (but it ended in blows);
Chucked in the river,
Came out with a shiver,
Cleaner in person though wetter in clothes.

Symptoms following rash exposure.

Lay in Guy's '*Orspital*,
Suffered remorse little
Thinking a ducking would bring him to bed,
Until he noted
His body was bloated,
A pain in the back and an ache in the head.

And treatment thereof.

Mist. Ammon. Acetat.,
Et Aqua Destillat.
*Ad libitum* (Dr. Dickinson's tip);
*Sextarius lactis,
(Excellent practice),
Et Haustus Sennæ—occasional sip.

Growing anæmic,
With twitchings uræmic;
Wrap him in blankets and make him perspire;
Puncture his jugular,
(Not at all singular;
Measure which Broadbent and others admire).

Kismet!

Means therapeutical
Tried on his cuticle,
Hot vapour bath, Pilocarpin. Nitrat.
Proved unavailing,
All remedies failing:
Leave him to fate, irresistible fate.

Kill or cure.

Tubules Southeyan
(Measure Protean!)
Should we insert as a *dernier ressort?*
Responding in Gallic,
*Caractère italique,*
The Critic may answer, "*Mais vous avez tort.*"

Lethal termination

They carried him down in the dead of the night,
For, diet and physic and punctures despite,
Death mastered the bargeman who suffered
from Bright. γ.

* Sixth part of a measure—a pint.

## REST AND PAIN.

The title given for the Treasurer's essay this year is "Rest and Pain." In writing on this subject, while reserving the right to make a few remarks of a more or less general character on the subjects of Rest and Pain, it will be my endeavour to give some account—necessarily meagre and one-sided, from the small acquaintance I have had with clinical work—of the *diagnostic value of pain and the therapeutical influence of rest.*

One of the many great surgeons connected with Guy's Hospital once said, that "nine-tenths of successful practice in medicine and surgery depends upon accurate diagnosis." For this reason, as well as for the fact that diagnosis must always precede treatment in rationally dealing with disease, it will be convenient to begin first with the use of pain as a symptom.

We have various means at our disposal of which to make use in our efforts to find out the disorder or injury, from which, or from the effects of which, a patient is suffering. We have the evidence given us by our senses, such as sight, feeling, hearing, smelling, and so on. We have such indications as are afforded by the skilful use of instruments, such as the stethoscope, ophthalmoscope, catheter, sound and speculum; and by a study of what may be gathered from the tongue, pulse, skin and excretions. Amongst a host of symptoms, some of which we get from the patient himself, and others in the manner I have just indicated, there appears to be hardly a more useful, and, if properly understood, a more applicable factor in diagnosis than pain.

By "common sensation" we may say is meant a number of pleasing or unpleasing sensations in parts of our body to which sensory nerves are distributed, and which we are not accustomed to refer to external objects, and which we are at some loss to compare with other sensations—for the reason that each possesses features peculiar to itself—thus we have fatigue, hunger, horror, vertigo, and the like. In addition to this, wherever we have sensory nerves distributed, we may have stronger stimuli than normal passing from periphery to centre, and causing what we feel "on occasions all too frequent" as pain.

The stimuli may be various—thus we have mechanical, chemical, thermal, electrical, and, perhaps most active of all, *somatic, i.e.*, inflammatory disturbances and interference with the nutrition of a part. By stimulating a nerve in its course, we have the sensation of pain, and the pain thus felt is always referred to the peripheral distribution of the nerve stimulated. This holds good as well for the nerve, whose peripheral distribution is intact, as for the nerve whose endings have been destroyed. In each case the localisation is the work of the central nervous system, that is, it is "subjective." Thus, by striking the ulnar nerve at the elbow, we get tingling at the fingers; and in the stump of a limb amputated at the knee we may have nerves irritated in what, if the

parts had been intact, would have been their trunks, that is, as far as the brain is concerned; but in these circumstances again we get the pain referred to the amputated foot. One of Mr. Symond's patients in Charity once told me that her left foot and leg, amputated some weeks before, often annoyed her by their itching—and, at night especially, she often experienced an almost irresistible desire to rub and scratch the parts.

Over-stimulation of a sensory nerve in its course may so affect its conductive powers that peripheral impresions are no longer perceived; but sufficient stimulus, applied to the central part of such a nerve, produces a sensation of pain referred to the periphery; this constitutes the paradoxical "anæsthesia dolorosa."

Some painful impressions we can localise, others we cannot—thus, within certain limits, and subject to a definite law, we can localise the prick of a pin, while the pain known as belly-ache it is impossible to localise. A frequent source of error in localisation is caused by "irradiation;" thus, pain from a carious tooth may spread over the whole face and side of head. The explanation of this phenomenon may be the fact that painful impressions are conducted to the brain through the posterior roots, and then probably through the whole grey matter, and that the stronger impressions give rise to the stronger pain.

Pain is seldom continuous and uniform; its intensity is subject to increases and decreases of severity, and these may be periodic. Some nerves appear more excitable than others, and their own stimulation causes most pain—such an one would be the fifth cranial. Nerves may become morbidly oversensitive, when a touch or breath of air may cause severe pain. We may have certain indefinite unpleasant sensations, such as itching, creeping, formication such as in ergot-poisoning. We may sometimes get a double sensation of pain, as for example may be produced in cerebro-spinal meningitis by a prick on the foot, and this is accompanied by a double reflex contraction. A possible explanation of this curious phenomenon may be that some sort of delay takes place somewhere in the transmission of the impulse.

Having thus glanced at what is meant by the word "pain," let us pass on a little further. We know that diseases and injuries are generally accompanied by pain, often characteristic in its nature and position, hence the assistance it gives in diagnosis. Let us glance at some of the reasons—(1) *for the presence of pain*, (2) *its intensity* (3) *its position*. And here I shall attempt to show by some examples, anatomy becomes very useful, nay, indispensable. Pain in some spot where no redness and heat and the like can be observed, depends upon some lesion at a distance, the bond of connection being through the medium of nerves—at least, presumably so, for we have no evidence of any other tissue being concerned in the matter. In order, then, to track out the distant lesion, we must know the nerve supply of the body accurately; just as a geologist, when he finds a small outcrop of coal in a particular spot, brings to bear his knowledge of the lie of the land, the nature of the various strata and their dip and position in order to trace the main "lead" from which the outcrop takes its origin, so a surgeon applies his knowledge of nerve anatomy to lay bare the seat of a lesion which has manifested itself by a distant "outcrop" of pain. So, for instance, in deep-seated ophthalmitis there may be acute pain over the distribution of the 5th nerve in the head and face, the connecting link being the ciliary branches of the nasal distributed to the iris, and becoming irritated by the morbid processes.

The sacro-iliac synchondrosis is supplied by the superior gluteal, the lumbo-sacral cord, the 1st sacral, and by the 1st and 2nd posterior sacral nerves (Morris). The joint also has intimate relations with the lumbo-sacral cord and the obturator nerve. Hence, when we get disease in this situation, we may have pain over the sacral region (upper sacral nerves), in the buttocks (gluteal N), in the hip and knee joints and inner side of the thigh (obturator), and from the connections of the lumbo-sacral cord with the great sciatic nerve, even in the muscles of the calf and back of the thigh.

The parts with the largest nerve supply are usually most painful when diseased. The pain of extravasated urine is accounted for by the distribution of the long scrotal nerves—that of ischio-rectal abscess, by the stretching of the numerous branches of the external hæmorrhoidal nerve, as the pus forces its way to the surface. The acute sensibility of the anus is due to its enormous nerve supply, operations for anæsthesia on this part, having to be far more complete than for any other part of the body. On the other hand, the upper part of the rectum is ill-supplied with nerves, and so we may have malignant disease there so advanced as to entirely occlude the whole lumen of the bowel, and yet producing very little pain, unless the glands in the vicinity be implicated. The upper part of the rectum is marked by great dilatability and very little sensibility, while the lower is acutely sensitive, and has great powers of contraction. Each of these may be explained by the large number of sensory and motor nerves supplied to it. For the same reason the neck of the bladder is acutely sensitive, and the fact that the same nerves send branches both to the neck of the bladder and to the anus, accounts for irritation of the rectum and anus (by worms, piles, and the like), causing retention of urine.

On the inner side of the leg we often have very painful irritable ulcers, and a varicose condition of the internal saphenous vein is far more painful than varicose veins in other situations are. The cause lies in the proximity of the large internal saphenous nerve, which is liable to be pressed upon, especially when, from any mechanical cause, the veins are abnormally distended.

A deep plexus of veins has been described by Verneuil between the two layers of muscles in the calf, and these veins are said to be very often varicose, accounting for the aching legs of those who have to stand much.

The pain in inflammatory trouble is directly proportional to the unyielding nature of the structures affected

and their surroundings. The inflamed epididymis is not particularly painful, while orchitis makes the organ acutely painful. The reason for this is very simple. The testis is enclosed in a firm, dense tunica albuginea, which prevents expansion. The unyielding nature of this covering is shown by the formation of fungous growths in the case of testicular tumour, the contents of the tunica being slowly forced through a small rent. The epididymis, on the other hand, is free to expand. The pain is thus inversely to the swelling produced: thus the pain of inflamed bone is terrible, that of cellular tissue trifling. An inflamed prostate, or an inflamed tooth pulp, are both acutely painful, from their inability to expand, and the great suffering caused by an inflamed bursa patella is owing to its having unyielding surroundings. The same disease, situated in internal organs, often causes far less pain than when seated in some superficial part—for example, cancer of the breast may be, and generally is, the cause of much suffering. Excise the tumour, and unless you have been fortunate enough to catch it in a very early stage, the growth recurs; but this time most likely in some one or other of the viscera, where its presence, though very likely fatal, is productive of far less physical and mental anguish than was the original trouble. The reason probably lies in the insensibility of most of the viscera, the opening of the gut itself in colotomy being a painless proceeding.

Before going on to some instances of the use of pain for diagnostic purposes, let us pause for a moment to notice some of the distinct *kinds* of pain. Just as voices or tones of musical instruments differ in character, so do pains differ from each other. In the congestion of an organ it is dull and aching. In an abscess or in inflammatory tissues generally the pain is throbbing, each throb being synchronous with the cardiac systole; and that the peculiar character of the pain is caused by the injection at each beat of fresh blood into the tender tissues, is proved by the fact that after holding high up an inflamed finger, so that the blood reaches it with difficulty, the throbbing ceases, but recommences the moment the blood is allowed full entrance to the inflamed area; observe, also, the sudden increase in the peculiar sickening part of an inflammed testis when the subject rises from the reclining to the upright posture, due to the extra foot or so of blood in the veins, which are unable to empty themselves so well.

Precisely the same principle holds in the simple design for easing the pain of varicose veins. A couple of blocks, placed under the bed's foot, in order to raise that end up slightly and allow the blood to gravitate from the limb, is quite sufficient to cause an almost complete cessation of the aching connected with the impeded return of the blood from the limb, and to change a night of miserable wakefulness into one of calm and healthful repose.

A sensation termed "pins and needles" is a very common one—hysterical persons often use it to describe their pain. It appears also to be caused by the stretching of a nerve over an exostosis for instance, or when a nerve is drawn into or over the callus, thrown out between the ends of a fractured bone. The brachial plexus in fracture and dislocations of the humerus is often subject to this kind of influence, and then the characteristic tingling feeling passes right down to the fingers.

Burning and itching pain is characteristic of affections of the mucous membranes, as in conjunctivitis. Lancinating or stabbing occurs in inflammations of serous membranes, as in peritonitis. Osteitis is marked by aching pain. The "testicular" feeling is very characteristic and is often useful, in order to determine the position of the gland when about to tap a hydrocele; however deeply buried, pressure will always discover the situation of the testis. It may also be of use in detecting the difference between certain kinds of hernia and an undescended testis—especially if the latter be inflamed—when pressure on the tumour will, if the testis be present, give the sickening unmistakable feeling. With regard to such pains as are termed tearing, grinding, ripping, gnawing, piercing, and the like, we are quite unable to account for the differences (Landois).

Having now noticed some of the peculiar types of pain, let us now endeavour to see how we may apply the knowledge we possess of—

(1) *Pain itself.*
(2) *The nature of the pain.*
(3) *The position.*
(4) *Its connection with the anatomy, chiefly nervous, of the body.*

And we shall find, I think, we may apply it in an almost endless series of ways.

Just as the presence of smoke is proverbially an indication of the presence of fire, so is pain a proof that disease in some form is at work in the vicinity. The lesion may be slight, but the pain is seldom present without indicating friction—possibly a mere rub—of the vital machinery.

Pain, then, is a sign of local mischief. Again, like a sign-post, it often points *towards* the seat of the trouble. Thus, pain at the end of the penis does not generally indicate local disease, but when properly understood points to a stone irritating the sensitive base of the bladder, as plainly as the sign-board in a village silently brandishes its laconic direction "To London."

Pain is hard to contemplate, and suffering is hard to bear; but while we have disease pain may be of infinite use. To begin with: it is usually the means of bringing the patient to the doctor. We are all unanimous in agreeing that this alone is a very desirable sort of thing, from the doctors point of view, but what I wish to draw attention to is the fact that it is the best thing that can happen to the patient also. Generally it enables the physician or surgeon to attack the disease early, and before it is too late.

*(To be continued.)*

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## ABSTRACT OF A LECTURE BY DR. HALE WHITE ON EXOPHTHALMIC GOITRE.

The following two cases illustrate almost all the symptoms of the disease. Hence by detailing the observations made in them the disease will be described. To render the description more complete, those signs which were not present in either of the cases will be mentioned after they have been described.

The first case is that of a lady who came of a highly nervous family. Her mother was hysterical as was also the patient, and several of her relations exhibited strong nervous propensities. She had an enlarged thyroid, which gave a thrill and produced dysphagia and dyspnœa; exophthalmos, which produced immobility of the eyes, and caused her to stare; sweating; amenorrhœa; a temperature above 100° F.; wasting; a ravenous appetite. The outset of the disease was slow.

The second case is that of a man, now in Clinical Ward, who is a young adult, of a highly nervous and excitable temperament, and who comes of a neurotic stock. His thyroid is considerably enlarged. A thrill can be felt, and there is dyspnœa and dysphagia. He has no exophthalmos, but palpitation is well marked; there is a very loud blowing functional systolic murmur to be heard at the apex, and the beats are irregular and rapid; he suffers from sweating; has a temperature above 100° F., and has diarrhœa and wasting.

The other symptoms sometimes present, but not occurring in either of these cases, are the following:—Anæmia; Graefe's sign, that the upper lids do not follow the eyes in their downward movements, as they do in health; Stillweg's sign, that, owing to the exophthalmos, the upper lid is permanently retracted, leaving the eye partially uncovered at all times. The lower lid may also be immobile, and the eye may ulcerate. The retinal vessels may be seen to pulsate. The eye itself may be felt to pulsate, and a murmur may be heard with the stethoscope on the eye. Dilatation of the heart may occur. Vomiting is sometimes present, and an anæmic murmur is frequently heard.

A case, recorded by Dr. Savage, of a young woman emphasises two important points. She was of a highly neurotic family, was herself insane, and after death the Peyer's patches were found to be enlarged and congested. Thus by this and many other cases the importance of the neurotic history is shown, and also the frequent association of the disease with affections of the lymphatic system.

It may be of use to remember that all the eye symptoms may be artificially produced by the application of cocaine in large quantities to the eye.

Note also that there are no changes in the pupil nor in the discs. Of the important symptoms—viz., enlargement of the thyroid, palpitation and exophthalmos, the exophthalmos is the one most frequently absent, and Graves, in his original account of the disease, only gave it as being present in one of his cases.

With regard to the prognosis, Dr. White stated that he had visited or written to the friends of twelve patients who had been in the Hospital for the disease within the last few years, and he found no less than seven of these patients were dead. One died from gastric ulcer, one from mitral regurgitation, one from phthisis, one from an axillary abscess, and two had died suddenly. Of these two no autopsy was made, the cause of death consequently remaining uncertain. Exophthalmic goitre does not kill, but it renders the subjects of it more likely to succumb to any disease which may attack them.

*Treatment.*—Of the cases recently admitted to the hospital, the patient who did best of all had no treatment; a second case was much benefited by the application of cold water by means of Leiter's coils; a third improved under the influence of a continuous current; and a fourth on iron, digitalis and belladonna.

Iron has been recommended, but it certainly does absolutely no good and may do harm. In fact, its administration may serve as a means of diagnosis between Graves' disease and the only other disease with which it is likely to be confounded, namely, anæmia.

Belladonna and digitalis have been used, but it is doubtful how much good they do.

The application of the continuous current to the neck is of very doubtful benefit; and since it has been shown that the disease is not an affection of the sympathetic of the neck, there does not seem to be any reason why it should do good.

The treatment hitherto most successful is the application of cold water by means of Leiter's tubes to the thyroid, the heart, and if necessary the eyes. To be of any service, this treatment must be persisted in continuously for long periods.

The order in which the symptoms occur is uncertain; in fact, any of the three important ones may be the first to appear.

As a rule, Peyer's patches and the solitary follicles are affected in this disease. This is shown to be the case by the frequency with which it has been noted in the post-mortem records of the hospital.

In many cases the patients give a history of having had rheumatic fever. At St. Bartholomew's, out of thirty-eight cases, in eight there was a definite history, in two a doubtful history, and in two others the condition of the heart could only be explained by a pre-existent rheumatism. In one case at Guy's, which is almost unique, Addison's disease was associated with exophthalmic goitre.

*Pathology.*—The thyroid gland is hypertrophied, there is a large increase in the number of vesicles, and the stroma is crowded with a large number of leucocytes.

The exophthalmos has been said to be due to (1) an increased amount of fat in the orbit, (2) forcing of the eye forwards by the contraction of Müller's muscle, and (2) overfulness of the blood vessels. The last is the most likely view. The first is manifestly absurd, as a frequent symptom of the disease is wasting, and the second is equally unlikely, from the fact that the muscle is exceedingly small in man.

The heart is often enlarged and dilated.

Of the general pathology two views have been advocated. The first is, that it is an affection of the sympathetic. There is, however, no foundation for this view, as the sympathetic has frequently been examined and found to be healthy; and as the function of the superior cervical ganglion is unknown, the disease can hardly be said in any case to be due to it. The other view is, that it is an affection of the central nervous system, and this is the more probable view of the two, although the facts in its favour are very few, the chief one being the undoubted neurotic history in most cases. In one case too it was shown to be associated with organic disease of the brain.

## NOTES FROM GERMANY.

### THE SURGICAL CONGRESS AT BERLIN.

A brief account of some of the interesting events of the Seventieth Annual Congress of German Surgeons, will, I venture to hope, be of interest to the readers of this Gazette. From all parts of the country, surgeons and students came and met in the Aula of the University under the presidency of Prof. von Bergmann. Many of us from the Clinic at Halle attended, but we regretted the absence of the "chief," Prof. von Volkmann, on account of illness.

On 3rd April both medical and surgical faculties united in a great gathering in memory of the late Von Langenbeck. Dr. Bergmann delivered a funeral oration, and although that part of it relating to English surgeons and surgery has already appeared in some of the Journals,

yet it is of such immediate interest to Guy's men, that a record of it should without doubt be found in the pages of their Hospital Gazette. The eloquent tribute paid to the genius of Astley Cooper, the greatest surgeon of his age,—none greater in any age,—also to his immediate successors and relations, reflects the greatest lustre on the Hospital which formed the scene of their labours.

Speaking of Langenbeck's relations with England, Bergmann said, "His journey to England increased his inclination for surgery and decided his career. In London, at that time, many illustrious surgeons were teaching who kept up the heritage of a glorious past. Scientific collections, never seen or heard of before in Germany, were freely open to him, whilst the Hospitals gave him occupation the whole day. Astley Cooper especially attracted him. He had already given up lecturing, but his nephews, first-rate surgeons, paid much attention to the young German surgeon. Here Langenbeck felt at home. These men were not only distinguished practitioners of the healing art, but they were happy in the unselfish practice of their profession. The impressions made in Langenbeck's mind by his visit to the College of Surgeons, were deep and lasting. When, in 1881, he went for the last time to England to take part in the International Medical Congress, he had a most enthusiastic reception wherever he went."

It is unfortunately the opinion of some that professional relations in the respective countries are strained, but the testimony of Bergmann at this time is surely sufficient refutation of such a view—a view which, it seems to me, largely owes its existence to, and is carefully fostered by, some sections of the daily press. Personally, I may add, it has produced no reflex on Englishmen working here. There is no doubt a feeling of honourable rivalry, but none of petty animosity.

At the first meeting of the Congress, on April 4th, six hundred members were present, including many eminent representatives of surgical science on the Continent. The names of König, Schede, Petersen, and others, recur at once to one's memory. The Congress sat for four days, and so complete was the organisation that many of the important questions of the day received due attention. The mornings were devoted to Clinical work, with demonstrations of methods and the exhibition of cases; and the afternoon to reading of papers and discussions.

Amongst other matters, articles were read on "Carcinoma and its prognosis," by König, of Gottingen. The matter was treated very fully, and gave evidence of great clinical experience, but the points of prognosis and the length of time gained by operative interference did not differ widely from the views now held by English surgeons. Steinthal (Heidelberg) spoke on the treatment of peritonitis following perforation and advocated laparotomy and antiseptic drainage of the peritoneal cavity. On subsequent days papers were read by Lauenstein, of Hamburg, on the healing of "Wounds under a Scab;" and by Professor Wölfler (Gratz) on the "Value and methods of transplantation of mucous membrane and epidermis, especially in severe strictures of mucous channels." The difficulties in many of these cases can be temporarily overcome, but to ensure permanent success the writer advocated entire excision of the cicatricial tissue and union of mucous membrane with the corresponding structure across the line of excision. If unable to accomplish this, he had extended to mucous membranes, Thiersch's method of transplantation of epidermis and had been successful in two cases. In one, mucous membrane from a prolapsed uterus was used in the restoration of the normal structure lining the urethra, and in the other, a case of blepharoplasty, the necessary material was obtained from a prolapsed rectum and transferred to the conjunctiva. An interesting account of the ætiology and anatomy of hernia was given by Dr. Douglas, of Edinburgh, now working in his laboratory at Leipzic. Several other papers were submitted to discussion, but only those dealing with more interesting topics are noted here.

A most instructive demonstration on the action of ptomaines was furnished by Brieger (Berlin), who has studied the subject specially for some years. He selected three—tetano-toxine, neurine and saprine—and in each case rabbits were made use of. Tetano-toxine placed beneath the skin of the back, in two minutes produced powerful muscular contractions, first in the jaw and then extending to the body and limbs. The reflexes were excessively exaggerated and mere tactile stimulus sufficed to induce violent muscular spasms with extreme opisthotonos. In eight minutes there was general rigidity, and four minutes later the animal was dead. Neurine injected in ethereal solution produced in one minute rapid breathing, and the animal became drowsy; in four minutes profuse salivation commenced, and was so excessive that a pool of saliva soon formed on the table. Violent convulsions then followed, in which flexor spasm predominated, and a remarkable condition of emprosthotonos developed. The reflexes were so intense that twice the rabbit was jerked off the table by the resulting clonic spasms. Saprin gave rise to restlessness and an aspect of terror with general tremor and lateral movement of the head to the left side, and later, general convulsive movements of both flexors and extensors, followed by muscular paralysis and a peculiar sprawling attitude.

Professor Fischer (Breslau) brought forward three successful cases of cerebral surgery. One of extensive compound fracture of the vault of the skull in the upper part of the right parietal bone with lesion of the motor centre for extension and supination of the upper limb, located by Hitzig & Ferrier in the upper region of the superior parietal lobule. Loss of power in left arm rapidly followed the injury, and so trephining and elevation of the fragments was had recourse to as soon as possible. When seen by us the patient had regained the entire use of the limb. Another no less remarkable case, was one of cerebral abscess due to mastoiditis successfully operated on; and yet another, of traumatic epilepsy following a blow on the right parietal eminence and relieved by trephining. Then came a series of

demonstrations on resection and osteotomy of the lower jaw. A patient was brought forward from whom the entire half of the bone was removed six years previously for myeloid sarcoma, and who was still quite free from recurrence. Cursorily glancing at the patient, it would not have been possible to tell that so severe an operation had been performed, as all signs of disfigurement were concealed by a bushy beard, and the contour of that part of the face was well preserved by a metal plate in the mouth. Such a case calls to my mind an almost parallel one operated on by Mr. Jacobson in 1881.

On the subject of anchylosis of the lower jaw following destructive inflammation of the temporo-maxillary articulation, Dr. Kuster (Berlin) enlarged at some length, and, in support of his views, exhibited a patient who had suffered from complete bilateral anchylosis, and was much relieved by double osteotomy anterior to the angle. In some cases, however, he deemed it a better plan to divide the bone at the junction of the vertical with the horizontal ramus, thereby preserving the action of part of the masseter and internal pterygoid. A rare form of dislocation of the inferior maxilla backwards was alluded to by Threm (Coltbres). He described two varieties, one directly backwards on to the root of the mastoid process, and the other backwards and inwards on to the root of styloid process. In such cases, unreduced, a new articular surface forms posteriorly to the normal, and which was dignified by the name of fossa tympano-stylo-mastoideus.

Prof. Israel, to whom is assigned the credit of the discovery of actinomycosis in man, demonstrated his method of rhinoplasty by forming an oval flap with the periosteum attached from the forehead, and had attained successful results, as far as the shape of the new organ was concerned. Hellferich, of Preifswald, advocated another method. A student, in one of the numerous duels occurring weekly at German Universities, had the misfortune to lose his nose almost to the root. As the face was already much scarred, Hellferich cut two triangular flaps down the cheeks, with their bases outwards and their apices attached at the side of the nasal cavity. They were then twisted into position and united to the freshened stump and to each other along the median line. The incisions were carefully planned to follow as much as possible the lines of previous scars, and so the results of the operation added but little to the already furrowed condition of the cheeks. It may be said that the greater the disfigurement the happier is the possessor of the visage, and a student's personal vanity may be roughly estimated by the number and depth of the cicatrices.

Dr. Frehr (Lemberg) read a few notes on the results of transplantation of nodules of carcinoma from patients to dogs. He found that in six weeks the foreign material had become entirely absorbed. A very probable result, one ventures to think.

Bergmann (Riga) introduced a patient in whom he had extirpated the larynx two years since for epithelioma. No recurrence had taken place, and the man could whisper so far as to be understood by his friends, when the orifice of the tracheal tube was closed. An isolated case, however successful it may be, is but a poor set off against the terrible mortality of this operation.

Skin transplantation en masse and its results were touched by the originator of the method, Prof. Thiersch (Leipsig). He had occasion to remove a sarcoma growing from the tissues over the frontal bone, and a raw surface 3 by 4 inches was left after the operation. A portion of epidermis of these dimensions was removed from the back and placed in accurate co-aptation with the wound. In three weeks the wound was completely skinned over. It is interesting to note, that in the preliminary experiments carried out for the purpose of determining the possibility of this procedure, skin from a negro, placed on a granulating surface of a white man, completely lost its pigment; and when healing occurred, the scar was quite white. Further, unpigmented skin grafted into a negro, quickly became dark.

Intubation of the larynx finds favour with Prof. Thiersch, especially in infants with diphtheria, in whom the prognosis of tracheotomy is notoriously bad. It is worth while to note that it is called O'Dwyer's method; but the credit of its introduction is not due to an American, but to a British surgeon, MacEwen, of Glasgow, who first employed it in 1883.

Much of the field of Clinical Surgery was thus traversed at the Congress, but it is impossible for me to dilate any further on the subject; yet I would add, that we were given the opportunity of visiting Von Bergmann's Clinic and seeing some of his methods.

In another paper I hope to send an account of the Clinics here.

Halle, Germany. A. H. TUBBY.

## NOTES ON PATHOLOGY.

By DR. R. E. CARRINGTON.

*(Continued.)*

### LIVER.

MURCHISON'S CLASSIFICATION.

ENLARGEMENTS.

*Painless.* — Lardaceous. Fatty. Hydatid. Simple hypertrophy. Leuchæmia.

*Painful.*—Cancer. Pyæmic abscess. Tropical abscess. Cirrhosis, hypertrophic. Congestion. Catarrh of ducts. (Tuberculosis. Tumours. Cysts.)

CONTRACTIONS.

Simple atrophy. Acute yellow atrophy. Atrophic cirrhosis.

LARDACEOUS DISEASE.

*General Pathology.*

*Causes :—*

i. Suppuration, using the term in its widest sense, the commonest cause being bone disease and phthisis.

ii. Syphilis apart from suppuration.

Other alleged causes are—

Chronic ague and malignant disease.

*Tests :—*

i. Lardaceous viscera stain a deep mahogany brown with solution of iodine in potasium iodide.

ii. For microscopical demonstration methylaniline violet is best to use. The sections are first stained and then washed with dilute acetic acid. The result is that the lardaceous matter shows a rose-pink colour.

iii. Lardaceous material is said to turn blue with iodine and sulphuric acid. This probably never occurs unless cholesterine is present.

*Pathology.* The two points in dispute are—

i. Is the lardaceous material an exudation from the blood ?

ii. Is it a degeneration ?

In composition it is nitrogenous, and closely resembles that of fibrin. The term "amyloid" was started on the theory that the substance was starchy from reaction with iodine and sulphuric acid.

The evidence of its being a degeneration rests upon histological grounds. If an early specimen be examined which contains a small artery and be stained with aniline violet, individual muscular fibres will be found to be affected and to be surrounded by healthy cells. This, of course, is difficult to explain on the supposition of exudation. Dr. Dickinson is the author and advocate of the exudation theory. This theory is based on the following facts :—

1. That lardaceous material is very soluble in alkali.

2. That after treating with alkali it no longer stains with iodine.

3. That if after treatment with alkali it be treated with acid, it will again stain with iodine.

4. That chemical analysis shows lardaceous organs to be largely deficient in potash.

5. That if fibrin be treated with dilute acids it will take the iodine reaction as well and as deeply as lardaceous matter.

Therefore he suggests that lardaceous matter is deposited from the blood because from deficiency of potasium it has become insoluble. The cause of this deficiency in suppuration is the loss of corpuscles, and these elements of the blood contain a large proportion of potasium.

The question of the influence of syphilis is more difficult to deal with.

But Dickinson suggests that deficient formation of corpuscles is as bad as excessive loss.

Syphilis produces anæmia (*i.e.*, a deficiency of corpuscles), and this may act in a similar way, the salts of potasium not being in sufficient amount to keep the fibrin factors soluble.

A view has been strongly advocated (Goodhart) that there is some connection between lardaceous disease and fever.

It is pointed out that in febrile conditions the coats of the arteries assume a translucent appearance, comparable with that of early lardaceous disease.

*Order in which the Viscera are affected.*

1. Kidney.
2. Liver.
3. Spleen.
4. Small intestines.
5. Stomach.
6. Large intestines.
7. Adrenals.

Murchison, however, puts liver first.

*Order in describing condition of Liver.*

Amount of enlargement or contraction.
Uniform or non-uniform.
Surface.
Consistence.
Section to the naked eye ; and
Microscopically.

LARDACEOUS DISEASE.

Waxy, amyloid, (depurative, Dickinson).

*The increase in weight* is often very great, 180 ozs. being a common weight.

*Enlargement* uniform, except where lardaceous disease supervenes on a liver affected by syphilitic scarring. This may be mistaken for cancer.

*Surface* is quite smooth.

*Consistence* is doughy and inelastic; instead of displacing organs in its growth, it moulds itself around them, often receiving the impress of the ribs. It takes and retains the impress of the fingers.

*Section.* Its appearance will vary according to the amount of fat (which is almost always found associated with lardaceous disease).

Generally the parts thus differently affected remain separate. The lardaceous part is semi-translucent and of a pinkish-grey colour.

The fatty part is represented by lines of opaque yellowish-grey material.

The section is quite dry, or at the most a reddish blood-stained fluid escapes from the vessels.

Sometimes the deposit of fat is more uniformly diffused, and then the colour will become a yellowish grey.

Finally, lardaceous material undergoes occasionally calcareous degeneration, so that deposits of earthy matter may be met with.

Lardaceous disease is usually universally diffused throughout the organ, or may in rare cases be partial.

*Microscopically,* the first change appears in the arterioles of the hepatic artery, and the capillaries. These become semi-translucent, blurred and indistinct.

*N.B.*—The inter- and intra- lobular veins remain unaffected.

The question is raised as to whether the hepatic cells undergo lardaceous change or whether they are simply destroyed by the exudation of lardaceous material around.

This is left an open question by Dr. Goodhart, who says (Sydenham Society) that if the change does take place, the cells become enlarged and glassy; the nuclei disappear; the outlines become blurred. Then the altered cells become aggregated together into large irregular masses.

The final result is that a section of liver presents a homogeneous, shiny, structureless appearance in the midst of a delicate reticulum of connective tissue. The cells in the neighbourhood of the portal veins take up fat. The cells surrounding the hepatic vein either remain unchanged or undergo atrophy. The zones of the portal vein, the hepatic artery, and the hepatic vein are generally followed, but by no means closely.

HYDATID

Is caused by the growth and development of some form of tænia. In man, two forms are met with—

i. The cysticercus cellulosæ, which is the hydatid form of tænia solium.

ii. Echinococcus or common hydatid.

The cysticercus cellulosæ is usually met with very numerously and widely distributed, especially in the muscles. It is rare. The common hydatid as a rule occupies one of the larger viscera, in the vast majority of cases the liver. It may remain barren, but it usually multiplies either by an exogenous or endogenous process.

*Description of Tæniadæ.*

Tænia solium.

Tænia mediocanellata.

Bothriocephalus latus.

*Tænia solium is found in the ileum.*

It is 3 to 4 yards long.

Head globular, 4 suckers, a rostellum of 26 hooklets.

Joints or proglottides are longer than broad.

The genital aperture is on the side, a little beyond the middle.

The uterus consists of a central linear cavity with from 7 to 10 lateral branches.

*Tænia mediocanellata.*

Head, 4 pigmented suckers; no hooklets.

Proglottides are very irregular, but as a rule broader than long. They are larger than tænia solium.

Genital aperture is in the middle or behind middle.

Uterus branches dichotomously.

*Bothriocephalus latus.*

Head presents 2 lateral grooves.

Proglottides much broader than long.

Genital aperture in the centre of the flat surface.

Uterus is rosette shaped.

*Life History of Tæniade.*

All these creatures need two hosts:—One a carnivor for the tape-worm; one a herbivor for the hydatid.

There are a few exceptions, the most important being the tænia solium, both forms of which occasionally infest a man.

*The ova* of the tape-worm are discharged from the alimentary canal of their host in vast numbers. Then in some way, probably by means of some vegetable, they are swallowed by an herbivorous animal. This being received into the stomach, the chitinous capsule of the ovum is destroyed, and what is known as the *six-hooked embryo* is set free, which at once proceeds to burrow its way through the walls of the stomach. Some will pass into a blood-vessel and will be conveyed to distant parts of the blood-stream—the most common seat being the *Liver*. Others simply make their way by burrowing through the tissues. As soon as the embryo reaches its nidus, it fixes itself. The six hooklets disappear, and the embryo develops *into a cyst*.

From the interior of this cyst a *head with rostellum* and suckers is developed.

This is *the Hydatid*. The development may go no further, and in this case we have a "barren cyst," or, as it is called, "acephalous cyst." But in most cases both endogenous and exogenous reproduction takes place, *i.e.*, the cyst becomes filled with secondary cysts and others are produced and thrown off externally. The endogenous growth takes place by means of so-called "*brood capsules*." These are saccular protrusions from the inner wall of the primary hydatid. From the inner wall of this, other protrusions take place, which develop a head with rostellum and suckers. These grow and produce cysts in the interior of the primary cyst. The exogenous production takes place by so-called *daughter cysts*. These are cysts formed between the layers of the cuticle, the brood capsules being the product of the parenchyma. Cysts are thus produced which at first project from the surface and then are extruded. These cysts may produce brood capsules or daughter cysts, and so the multiplication of the hydatid goes on indefinitely.

The hydatid is devoured by a carnivorous animal, and then the head of the hydatid fixes itself to some part of the alimentary tract. It then consists of the head and a little cyst. Then it loses the cyst and begins to bud from the distal extremity, and in this way the proglottides are produced. These develop sexual organs (ovary and testis), ova are produced, discharged from the alimentary canal; some find their way into the stomach of a herbivorous animal, and the same circle goes on.

The hydatid form of the tape-worm of cat is found in man.

Tænia solium has its hydatid form in pig (measly pork); tænia mediocanellata in oxen.

Tænia solium in the case of man is an exception, for in rare instances man infects himself; and there is no doubt that tænia solium and cysticercus cellulosæ are now and then found in the same individual.

Tænia echinococcus hominis of the dog is important as the source of the hydatid of man. ¼in. long; head with rostellum, 4 suckers, 4 joints. The last sexual ova swallowed produces common hydatid in man.

Following terms are in common use:—

Strobila = Whole tænia.
Proglottides = The individual joints.
Rostellum = The circle of hooklets.

*(To be continued).*

# Passim.

H. Wilks has accepted the Captainship of the 2nd XI., and, with the support of the energetic Secretary, H. W. Webber, ought to make the fixtures of the 2nd XI. very successful. There appears to be plenty of material to work upon, and from these men the six vacancies of the 1st XI. will have to be filled up.

We regret to state that the Vice-Captain, G. Featherstone, has, unfortunately, found it necessary to retire from public life, and that the Cricket Club will be robbed of his services this season. We trust, however, that this decision will not prevent him giving assistance in the Cup matches, and that, despite his first intention, he will be seen on more than one occasion donning flannels and casting to the winds, for the time being, Physiological theories.

Dicitur that there are some prominent football players who are hiding their cricketing capabilities: we hope, under the present circumstances, that they will no longer remain modest, but show very shortly that they can gain as great a reputation on the cricket-field as they have already done on the football, and be of as much help to the Hospital during the summer as they have lately been through the past six months.

The United Hospitals Cricket Cup has been for some little time our own property; and shortly a Committee Meeting will be held to decide on its future place, and the suitable inscription required. It has been settled to have the names of the men composing the winning teams inscribed on it. As many may recollect, three elevens only will appear, for it was on that condition that the compromise was effected between ourselves and the United Hospitals' Committee. We hope that the present season will find our names on the new Cup as the first winners; but as regards that point, our Sporting Correspondent, in another part of our paper, appears to hold very dubious views.

On Friday, May 4th, a crowded and representative meeting of the Students of the Hospital was held in the Anatomical Theatre, to consider the presentation of an address to Mr. Bryant. Mr. Drew, addressing the meeting from the Chair, pointed out, in a few well-chosen words, the object for which they had come together. Mr. A. H. Williams proposed and Mr. Heatherley seconded the resolution, "That the Students of Guy's Hospital resolve that a Testimonial be presented to Mr. Bryant on his retirement from the post of Senior Surgeon to the Hospital." This was received with acclamation, and carried unanimously. A Committee was then formed, at Mr. Hawkins' suggestion, to carry out the necessary details, and the following names were put forward and approved of:—Messrs. Drew, Fisher, A. S. Taylor, Fripp, Fawcett, Allport and Sawyer. The meeting then adjourned. We would call the attention of old Students and past Dressers, who wish to participate in the Testimonial, to the fact that the subscription list will be closed, if possible, on May 16th, so that the presentation can take place about the 20th inst., the date of Mr. Bryant's retirement.

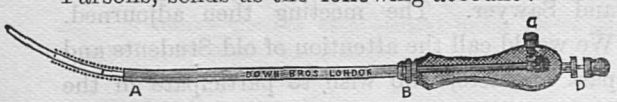
We print elsewhere the alterations made of late in the Rules of the Physical Society. We would especially call attention to the fact that a qualification no longer renders a man ineligible as a candidate for a prize. Some such alteration seemed to be urgently called for, as last winter the number of papers sent in was unusually small. We do not think that the change will be any hardship to the junior man, as the subjects chosen do not, as a rule, necessitate any great clinical experience. We may mention here that the subject chosen for the Treasurer's prize for next session is "Pyrexia." This being

a subject of great interest ought to produce a large number of competitors, more especially as the notice given is a long one.

J. FAWCETT has been elected a president of the Physical. This is a good choice, as he will doubtless bring to bear on the Society some of that energy for which he has been so long famous in our sporting world.

WE have lately seen a new Materia Medica Cabinet, made by Messrs. Down Bros., at the suggestion of Dr. Hale White. It is adapted for the examinations in Materia Medica of the Conjoint Board, and contains all the specimens that candidates are required to recognise. An important feature in the collection is the size and quantity of each drug, the amount given in most cabinets of this description being, as a rule, useless for recognition. We would advise all who can to obtain one of these cabinets.

WE give an illustration of and append a description to a new Uterine Electrode made by Messrs. Down. The author, Dr. J. Inglis Parsons, sends us the following account :—




This instrument is designed for the purpose of applying constant currents to the uterine canal.

In many cases of disease the normal length of this canal is very much increased, in other cases it is dilated and even tortuous. To meet these difficulties, the handle is made larger than usual so as to give plenty of command over the instrument.

The insulator is movable, and can be adjusted to any length. The last three inches are of platinum for use with the positive pole. Connection with the battery is made quite at the end so as not to touch the thighs. After use, the insulator takes right off, and so enables all the parts to be thoroughly cleaned in an antiseptic.

AT a General Court of Governors, held on Wednesday, Mr. R. Clement Lucas, B.S., M.B., F.R.C.S., was appointed Surgeon to Guy's Hospital, in place of Mr. Thomas Bryant, F.R.C.S., retiring from active Hospital duties, and appointed Consulting Surgeon. Mr. W. Arbuthnot Lane, M.S., F.R.C.S., was at the same Court appointed Assistant Surgeon to the Hospital.

## ON SMALL-POX.

By the Medical Superintendent of the Hospital Ships.

Few small-pox patients can give any satisfactory account of the circumstances of their infection. With many of those who can the number of pocks, and the appearance of successive crops of pocks, are dependent on the length of time of exposure and proximity to the source of infection. The disturbing factors are individual insusceptibility, congenital or acquired; personal cleanliness and clothing. If some happen to have been exposed for a short time only, the eruption on any particular part will all, or almost all, appear on one day. If others are exposed from day to day, crops of pocks keep on coming out for three or four days. As if each successive sowing resulted in papules after the lapse of a constant period on the same soil; at varying periods on different soils. So that if the patient was exposed to infection on the 1st of the month papules would appear on the forehead on the 14th, on the legs on the 16th. If daily exposed from the 1st to the 4th, and after, then on the forehead from the 14th to the 17th; on the legs from the 16th to the 19th.

A child told her schoolfellow she had just recovered from small-pox. About a fortnight later this schoolfellow was ill, her illness being diagnosed chicken-pox. An elder sister, aged 17 years, vaccinated in infancy, attended her during her illness, and was admitted about a fortnight later with an abundant eruption.

A Clerk at the Docks, aged 29 years, vaccinated successfully in infancy, unsuccessfully six years ago, went with a foreigner, suffering from small-pox, to a hospital to interpret, on the 8th August, and was subsequently daily employed on the infected ship. He had headache on the 18th, backache on the 20th. "Could not leave bed, had pain in the loins and violent retching after taking a glass of brandy and water" on 21st. Noticed blush in groin on 23rd. General eruption 24th. On admission on 25th, a confluent vesicular eruption on face, discrete elsewhere.

Two women, ages about 30, visited relatives in the country on the 22nd April, and were there exposed to small-pox infection. They both had discrete eruptions, neither had been vaccinated since infancy. One was ill on the 4th May, eruption 6th; the other ill 7th May, eruption 9th.

A woman, age 47, vaccinated in infancy, met another "in the village" on the 12th November. The latter's children were ill at home with small-pox. On the 21st, the former "felt poorly, back was so bad, legs ached and felt languid. Kept getting worse all the week; worse on the 24th, nausea, vomiting; 26th, eruption noticed. She had discrete small-pox.

A boy, aged 12 years, vaccinated in infancy, slept in the same bed as his younger sister till the spots came out on her. "She felt ill on the 14th November. Was ill three days. On the following day, pimples having watery heads were noticed; not many and very fine." She was the boy's "sole companion and playmate." He

was ill on the 29th November. Eruption 30th or 1st December. She was supposed to have had chicken-pox. He had an abundant eruption of confluent small-pox.

A woman, age 34, with indistinct vaccination scars, was languid. Had head-ache and sore throat on 12th November. Discrete eruption 14th. On 31st October, she visited a neighbour, whose child was dead "of chicken-pox." She touched the body.

Small-pox broke out in a well-known establishment. Four young men employed in one room had discrete small-pox. The source of their infection was not known. One of them infected his two sisters and a brother, all younger than himself, and all vaccinated in infancy. The sisters had discrete small-pox, the brother confluent. A young woman at the same place worked in a room where a young man (he had small-pox) was employed. She was not known to have had small-pox. She communicated severe small-pox to a younger vaccinated sister at the same time as the boy had it.

A man, age 23, vaccinated in infancy, was probably infected at his work, rag-sorting, and had very abundant eruption, augmented daily. (All the severe cases I have quoted had successive crops of pocks, and the mild only one.) 5th October—"Felt so languid, and couldn't eat all day; hadn't headache, but felt that way." 6th—Went to work, but couldn't eat; had twopennyworth of whisky on way home at night, after that thought he would "heave his heart up." 7th—Spots noticed in morning. Continued work till 10th, having been treated by his wife at beginning of illness and later by a herb doctor. On the night of the 10th he went to Guy's, and "had all the students looking at him for three hours till the ambulance arrived." This man's hands were almost free from eruption; from the wrist to just above the elbow the eruption was more abundant than elsewhere. He works with his sleeves turned up, and whenever he leaves off working he washes his hands, rarely his arms.

A young woman, age 20, vaccinated in infancy, was engaged to marry a young man. They went to an entertainment on the evening of the 16th March; he felt ill that evening, and died of small-pox at home on the 22nd. On parting from her at her home on the 16th he kissed her; she also went to visit him on the 21st and 22nd. She was ill on the 1st April—"cold shivers," head-ache and back-ache. On 4th, she noticed some spots. On admission, she had one pock on right side of nose, one over right eyebrow, a few on face, one pock on chest. She also had an abundant variolous eruption on her tongue and inside her mouth, and she had a severe sore throat.

A tramp attributed his infection to the use of a rug used before by another small-pox tramp. This man is in the habit of sleeping on his back, in his underclothes, with the sleeves tucked in above his elbows, his forearms crossed in front and his hands partly buried in his axillæ. He has an abundant variolous eruption on the extensor surfaces of his forearms, unsymmetrically and peculiarly disposed; elsewhere he has few pocks. When the man's arms are in the position stated, the parts affected are the parts that would be in contact with the rug covering him; the boundaries of the affected area are well defined and fit; there is even an unaffected patch on right forearm where the left covered it.

It is unusual for the eruption on the back to be less than that on the front of the trunk. There is a man in hospital who has much more in front. He was infected in a hospital; for some weeks before infection he had been confined to bed and had been on his back. He had cicatrizing and granulating wounds on his extremities dressed with boracic lint covered over with wood-wool. In the neighbourhood of these sores there is a marked absence of pocks.

Unvaccinated babies often have discrete small-pox on the skin with severe throat symptoms, due to eruption. In almost all these cases they have been daily bathed during infection.

## REST AND PAIN.

*(Continued.)*

Let us now pass on to some particular cases of pain. A backache is one of the commonest "aches" we meet with; most people will own to having it sometimes, and it may be due to a host of things. It is common in hysteria and it may be a symptom in lumbago, rheumatic gout, or in ovarian and renal disease. Mr. Hilton generalises and divides the back up into three regions:—

Firstly—*High up between the shoulders.* Here pains of "nervous continuity" as a rule co-exist with heart disease, aortic aneurism, disease at the bifurcation of the trachea and œsophageal stricture.

Secondly—*Between the middle and lower parts of the scapula.* In this region, and a little lower down, pain should suggest, through the medium of the great splanchnic and intercostal nerves, trouble in the digestive viscera, and possibly transverse colon.

Thirdly—*Lumbar region.* Here pain is connected generally with disease of one or other of the underlying structures: kidneys, ureters, colon, testes, and lumbar glands.

In heart disease intercostal pain is common, generally in the 6th, 7th, and 8th spaces. This is explained possibly by the anatomical fact that the nerves supplying these spaces are connected with the corresponding sympathetic ganglia, which in turn supply the heart. Similarly, abdominal visceral trouble may cause pain in the intercostal spaces and lower angle of the scapula, through the connecting link afforded by the splanchnic nerves.

In hepatic congestion, and during the passage of gall-stones, pain is often complained of in a curious place—the tip of the shoulder. Mr. Hilton thought this was owing to the phrenic nerves supplying on the one hand part of the liver, and being connected on the other with the 3rd and 4th cervical nerves, which go to make up the supra-acromial nerve. Professor Rolleston thought that the connection of the phrenic with the nerve to the subclavius might explain it. The pain, however, is not

at all in the clavicle. It is rather, if anything, on the edge of the trapezius, and keeping this in mind, a third explanation accounts for it by the intimate relation between the vagus and the spinal accessory—the latter, with the branches of the 3rd and 4th cervical nerves, supplying the trapezoid region, while the former takes part in the hepatic plexus.

*Neuralgic* pain is very common. We may find it following the course of a nerve or affecting a surface without regard to any distribution of a nerve. It may be trifling or very severe. It comes on rapidly with a jerk and continues, sharp and tearing, along the course of the nerve whose route may be perfectly mapped out. It may or it may not be relieved by pressure. We may have heat and redness of the part and increased secretion from the glands in the vicinity. The pain may be intermittent or remittent; may last a few minutes or months. The 5th cranial is often affected, and next often is perhaps the great sciatic. For the latter, we may account by the importance of its relations and by the liability of its neighbours to disease—for example (Treves), it may be pressed upon by pelvic tumours; by some of the pelvic veins (when engorged); by a sciatic hernia; or by aneurysm of some branch of the internal iliac artery; by fæcal accumulations; by a fœtal head during labour; or a violent wrench of the hip may irritate it—while cold and damp have no great difficulty in reaching it.

Pain in the region of the knee is one of the more prominent symptoms of hip disease—so much so, that it often masks the real lesion. Mr. Treves tells of a child who was sent to his out-patients with the knee firmly secured in splints, while his acutely inflamed hip joint was free to move. Of course, the pain in the knee must depend upon some nerve or nerves which are common to the two joints.

The hip joint has three principal nerve supplies—(1) Anterior crural sends branches to the front of the capsule; (2) the obturator supplies the inner and lower parts; and (3) branches from the sacral plexus and sciatic send their filaments into the posterior portions of the capsule. It is precisely these three nerves which also supply the knee joint, the nerves to the vasti supplying the front of the capsule, while the obturator and the popliteal nerves supply the back and lateral portions; and in addition to this, it is the same three nerves which send cutaneous branches round the knee.

The deeper pain would be accounted for by the nerves which enter the joint, while the more common superficial pain would be explained by the superficial cutaneous nerves. That on the inner side of the knee is the one usually observed. Aston Key thought that the reason for this was to be sought in the distribution of the obturator nerve to the inner side of the knee and to the round ligament; and in the fact that the ligamentum teres is, as a rule, the beginning of hip disease. Treves denies this last statement, and it is difficult to say in what structure the disease commences most frequently.

Joint disease is characterised by a very curious and terrible pain known as a "starting" pain. It occurs usually just as the patient is dropping off to sleep. All will be calm and quiet, when suddenly a sort of "starting" is felt in the diseased joint, accompanied by the most agonising pain, causing the greatest possible distress. I saw a man once in "Naaman," a few minutes after he had been rudely awakened by one of these attacks, and his pale, sweat-beaded brow and drawn bloodless lips, showed what he had, and what he was still suffering. His right knee was diseased, and Mr. Howse, a few days after, amputated the limb. I saw the joint some weeks later in the *Post-Mortem* Room, when it was shown by Mr. Targett as a specimen of a completely disorganised knee due to syphilis.

The explanation of this curious pain appears to be connected with the fact that the nerves supplying a joint, also supply the muscles which act on the joint. The ligaments and muscles are relaxed—the former by disease—they being softened—and the latter by sleep. The nerves of the joint, irritated by the disease, cause sharp reflex contraction of the muscles round the joint; and, in the case of the knee for example, the tibia is drawn suddenly against the femur, either nipping the synovial membrane, and thus causing the pain; or producing the suffering simply by the forcible contact of bare and inflamed bone. Professor Humphrey connects the pain with the erosion of the cartilage which is proceeding.

*(To be continued.)*

## Physical Society.

At the two last meetings of the Presidents of the Society, certain alterations in the rules were made, to which we would draw our readers' attention.

The following was resolved: That no member of the Society shall obtain the same prize on two occasions. And Rule II. in the conditions regulating the Society's prize, restricting competition for prizes to non-qualified men, was deleted.

In Rule XII. of the regulations, instead of "The reading of any paper should not occupy more than thirty minutes," the following alteration was proposed and carried: "The reading of any paper must be limited to half an hour; the discussion upon the paper to half an hour; and the last half hour is to be devoted to the exhibition and discussion of clinical and pathological specimens.

The name of Mr. J. Fawcett has been recently added to the list of Presidents of the Society, which now stands as follows:—G. Black, H. J. Campbell, W. F. Colclough, B.A., H. E. Crook, A. E. Durham, J. Fawcett, C. M. Kitching, R. D. Mothersole, E. Moss, N. E. Norburn, P. N. Randall, T. F. Ricketts, B.Sc., J. L. Roberts, B.A., B.Sc., G. B. Smith, E. H. Starling, C. J. Whitby, B.A.

The Pathological Committee is constituted as follows:—H. J. Campbell, A. E. Durham, G. B. Smith, E. H. Starling.

The following gentlemen have promised papers for next session:—A. E. Durham, Vicars, Hosking, MacIlwaine, Gill, E. Moss, Wakefield, C. M'G. Kitching.

The subject of the Treasurer's prize essay was decided upon, and the following chosen—"Pyrexia."

## ROYAL COLLEGE OF PHYSICIANS.

At a meeting of the Comitia, held on April 26th, William Hale White, M.D., Lond., was elected to the Fellowship.

## CAMBRIDGE UNIVERSITY.

At the Congregation, on Thursday, Edwin Cooper Perry, M.A., late Fellow of King's College, Senior Classic, 1880, was admitted to the degree of M.D.

## PASS LIST OF THE FIRST AND SECOND CONJOINT EXAMINATIONS FOR APRIL.

### ELEMENTARY.

#### ANATOMY AND PHYSIOLOGY.

Adams, E. L.
Barker, H. P.
* Birdwood, G. F.
Bourne, H. J. F.
Cresswell, E. P. S.
Croneen, S.
Daldy, A. M.
Davies, T. B. P.
Donnelley, W. T. B.
Dukes, E. S.
Evans, E. G.
* Fleury, C. M.
Fraser, H. St. J.
Graham, S. G.
Graham, H. W.
* Greenway, C. M.
Gutteridge, E. L.
Hamilton, E. T. E.
Hicks, F.
† Hunt, E.
Huntley, E.
Jones. A.
† Landon, E. E. B.
Lawton, W. C.
Lister, T. D.
Loveday. W. D.
Manning, T. D.
* May, P. M.
Moffatt, C. E.
Parry, L. A.
Rake, A. T.
Robson, T. S.
Roe, E. E. W.
Sheen, A. W.
Stearn, F. C.
Trevor, A. H.
Wason, R. L.
Wilkinson, H. B.
Yorath, T. H. B.

* Passed in Elementary Anatomy only.
† Passed in Elementary Physiology only.

#### MATERIA MEDICA AND PHARMACY.

Dixon, H. W.
Frazer, E. E.
Norris, A. E.
Pollock, J. R. R.
Rake, A. T.
Samways, D. T.
Wilks, H. L. E.

#### CHEMISTRY AND CHEMICAL PHYSICS.

Buchanan, A. G.
Carroll, R. J. H. W.
Chapman, A. V.
Dixon, W. H.
Hicks, F.
Robinson, F. A.

### SECOND CONJOINT EXAMINATION.

#### ANATOMY AND PHYSIOLOGY.

Bryant, J. H.
* Budge, E. J. H.
* Higgs, W. A.
John, H. W.
* Osborn, F. A.
* Rooke, E. M.
* Salter, C. E.
Samways, D. T.
Stevens, T. G.
Winslow, W.
† Biddle, H. G.
† Hodgson, H.
† Hogarth, B. W.
† Lulham, E. P. H.
† Meadows, A. H.
† Pollock, C. E.
† Roberts, J. H.
† Sichel, G. T. S.
† Steele, W. K.

* Passed in Anatomy only.
† Passed in Physiology only.

## ROYAL COLLEGE OF SURGEONS.

(OLD REGULATIONS.)

#### CHEMISTRY.

Offlahertie, G. F.

#### MATERIA MEDICA.

Jones, G. M. Purnell, P. Tebb, A. E.

# Sport.

## CRICKET.

It is too early to make any remarks with reference to our cricket prospects this season. We must, however, deplore the loss to our eleven of the invaluable services of our captain for the last two years, W. J. Scott, the keenest cricketer we have had for a very long time; a most popular captain, and a man, who had the happy knack of making runs when they were most wanted (notably his innings of 103, v. "Barts," in the Cup match last year, when we had lost 5 wickets for 13 runs). In Fripp, a thorough sportsman, a fine reliable bat and a safe field; whilst, in Bolus and Rygate, we lose two out of our three bowlers; in the former, too, a useful bat, but the latter, through want of practice, was not seen last year in anything like his proper form; and lastly, Russell, a very smart field with a tendency to make runs, when the chances were looking desperate.

We have, this season, a very strong list of Club fixtures, and on some of them, we can look for the assistance of our old men; but this course is not advisable, for combination will be required for the Cup matches. As regards new material, we have several men up, with reputations more, or less, good.

In batting: J. C. Shenton of the Clapton Club; H. A. Smith from Trinity, Cambridge; Yorath from the Cardiff Club; Richardson, a member of the Charlton Park Cricket Club; and Lulham of King's In bowling: there are our old men, H. B. Rygate and R. Ingram, who ought to be of considerable service; and of the new men,

Hinds, Graham and Henderson, rumour says are bowlers. There are also many men, who assisted us last year, prominent among whom are H. Wilks, T. S. Jackson, W. K. Steele, H. Budge, and E. Hunt.

With reference to our chances for the Cup, as our first draw, v. Middlesex, is on 24th May, it will be necessary for all men to get as much practice as possible, but with regard to winning, considering our severe losses, and "on dit" that Barts, Thomas's and London are much stronger than they were last year, it is quite a doubtful point. With combination, however, and enterprise on the part of our new men, we ought not to make it an easy victory for any of our opponents. In conclusion, we have nothing to do but hope for success, and leave the rest to our good fortune of the past, which we sincerely trust will not desert us now.

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The opening match of the Cricket Club was played down at Honor Oak on Friday, May 4th, between two mixed elevens of old members who did not succeed in getting their "colours" last season and new men who have lately joined, under the name of Captain v. Secretary's match. The wicket was slow, as was to be expected, but otherwise good, and the cricket displayed was of a fairly promising character. The top score was that of W. H. Jewell, who on making his 40 in a style of his own, had to retire after an extremely steady ninety minutes' play. Ingram, a medium left-hand bowler, with a break from the off, was very successful, the only drawback being that he soon tires. Shenton was rather unlucky, being bowled by a very fine ball from Ingram, but during his short stay at the wickets displayed capital style, and in the field was quite at home. Budge, W. K. Steele and F. H. Brown batted well for their runs, the latter's effort being rather free at times, and it is a pity he was not fit enough to finish his innings. Henderson will, most probably, train on as a bowler, having a nice action (left-hand fast-medium), but wants to use his head and not to bowl too many pitches—nevertheless, he sends down a trimmer occasionally. Of the other bowlers, Rygate, Wilks and B. Jackson were the pick, all being fairly steady and straight, but with hardly enough "devil" for a good match. The sides were as follows:—

| | |
|---|---|
| W. K. Steele, c Stevens b Rygate | 12 |
| H. W. Jewell, retired | 41 |
| B. Jackson, b Henderson | 3 |
| W. Sturgess-Jones, st Busteed b Rygate | 12 |
| W. Winslow, b Wilks | 0 |
| R. Ingram, b Rygate | 2 |
| N. Instone, b Rygate | 0 |
| F. H. Brown, retired hurt | 25 |
| H. W. Webber, b Rygate | 5 |
| W. E. S. Cobb, c Busteed b Rygate | 15 |
| W. A. Haslam, b Rygate | 0 |
| F. Colclough (Captain), not out | 7 |
| Extras | 8 |
| Total | 131 |

| | |
|---|---|
| J. C. Shenton, b Ingram | 3 |
| T. S. Jackson, b Ingram | 4 |
| R. Henderson, b Ingram | 0 |
| E. Hunt, b Jackson | 2 |
| H. B. Rygate, b Ingram | 3 |
| H. Wilks, c Hunt b Ingram | 6 |
| T. S. Robson, b Ingram | 0 |
| E. Budge, b Ingram | 8 |
| — Pratt, b Jackson | 0 |
| T. G. Stevens, c Jones b Steele | 9 |
| J. H. Busteed, not out | 19 |
| Extras | 7 |
| Total | 61 |

## ROWING.

Practice for the Inter-Hospital Cup is being vigorously carried on at Putney, and several very good crews have been out.

St. George's have a very good-looking crew stroked by J. F. Dickson, the well-known Cambridge oar; and St. Thomas's, captained by T. O. Lambert, have also a powerful crew, while St. Bartholomew's are also strong.

Several combinations have been tried for our four from the following:—E. M. Pilcher (capt.), H. A. Smith, E. J. D. Mitchell, A. E. Durham, F. G. Swayne and A. Allport. In all probability the crew will be as follows: A. E. Durham (bow), A. Allport (2), F. G. Swayne (3), E. M. Pilcher (stroke). A coxswain still has to be found. With regular work the above ought to be a fast crew, their worst faults being unsteady sliding by one or two members and lateness in getting their leg work on. Regular tubbing, however, ought to go a great way towards eliminating these faults, especially if they follow the instructions and tuition given them by the captain. The races for the challenge prizes, the silver sculls, presented by T. Callaway, Esq. junior, and the silver gilt oars for pair oars, presented by J. Benson, Esq., will take place on June 28th, and we hope to see a good number of competitors come to the post. The entrance fee is 2s. 6d. a head for each event, and prizes will be given to the winners in addition to the challenge prizes, which are only held for one year. The course is between Putney Bridge and the Old Crab Tree Inn, and is quite long enough to make the value of training felt.

On May the 17th, the United Hospital Rowing Club hold scratch four-oared races, which will be rowed in out-rigged clinker boats with slides; in fact, in the same boats used for the Inter-Hospital race. Any members of Guy's Rowing Club who wish to row are requested to give in their names and entrance fees to the Hon. Sec., or Committeemen of their year.

The officials of the Rowing Club are contemplating holding a series of swimming races for members of the club. The date and place are as yet unsettled.

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SYLLABUS OF A COURSE OF LECTURES ON PHYSIOLOGY, delivered at Guy's Hospital. By P. H. PYE-SMITH, M.D., F.R.C.P., Lond. J. & A. Churchill, 11, New Burlington-street.

**Guy's Hospital Gazette,**
*MAY 26, 1888.*

## PECULIAR CASE OF FRACTURED BASE WITH MENINGITIS.

Daniel Sheen, 18, was admitted on Mar. 13th, under Dr. Pye-Smith in a comatose condition, the supposed result of an accident.

*His general health* is said to have been good, but he has suffered from a chronic otorrhœa of the left ear for some years, and he has occasionally had an attack of herpes on his face.

*History of his present illness.*—On Sunday, Mar. 11th, about 4 p.m. (two days before admission), he was sparring with another lad, when the latter slipped and fell against the patient, striking his head on the patient's left mastoid region. After the blow the patient was very giddy and had to be supported into the house. He vomited several times, and it is stated that a little blood came from the left ear, followed by a slight watery discharge. The history of this discharge, however, was obtained at second hand, and not much attention was paid to it.

When he had recovered from the immediate effects of the accident, he was taken home and put to bed. He was perfectly rational; took his food (beeftea and milk) well; and slept well on Sunday night. According to his mother's account he had no headache till mid-day on Monday, Mar. 12th.

Monday afternoon, however, he began to complain of pain in the left side of his head. This increased rapidly. He became inattentive when spoken to, and early on Monday evening he lost consciousness. Monday night he became delirious; he became violent, getting up in bed and continually calling out. The delirium continued till mid-day Tuesday, when it subsided. He remained unconscious, however, and Tuesday night he was brought into the Hospital.

There was no history of convulsions.

*On Admission.*—Patient is not a healthy looking lad, being thin and ill nourished. Temperature 101°. Pulse 68, regular, moderately strong. There is slight tenderness over the left mastoid region, but no effusion. No discharge from ears; but perforation of left membrana tympani. He lies in an unconscious state on the left side. He is rather irritable, and frequently moves his limbs in a restless manner. He puts on an aggrieved expression when disturbed, but makes no violent resistance. The right side of the face is weaker than the left; and there is some loss of movement in right arm. The legs are not paralysed.

Eyes present conjugate deviation to left. Pupils medium sized, equal, and react equally to light. No squinting. Optic discs are healthy. He swallows liquids tolerably well when they are placed in his mouth. No vomiting. Fæces are retained. Urine is passed involuntarily at intervals. Breath and heart sounds normal.

*Treatment.*—Six leeches were applied behind the left ear; one grain of Hyd. cum Cret. was placed on the tongue, and Pil. Col. cum Cal. gr. x. was given in milk. Patient was fed by the mouth with milk.

March 14th. Patient still lies on the left side, with arms and legs flexed; quite unconscious. He moves his limbs restlessly, and often makes a picking movement at his nose with his left hand. He is still irritable. Eyes are closed; face flushed and skin hot. Temperature 101°. Pulse 104. Respiration 38.

In the evening. He lies on his back; but the head is still turned persistently to the left, and the eyes deviate in the same direction. The bowels had to be relieved with an enema. Temperature 102·2°. Pulse 96. Respiration 38.

March 15th. Patient lies on his back in the same condition. Head still turned to the left; but no deviation of eyes. Right side of face distinctly paralysed, and loss of movement is

marked, though not complete in the right arm. A large patch of herpes has developed on the right cheek. Temperature 102·8°. Respiration 38. Pulse 80, strong and regular.

7 p.m. He lies on his back with legs extended. Restlessness has disappeared. Still unconscious. The eyes are sometimes open, but he cannot see at all. Temperature 101·6°, pulse 88. Respiration 40.

March 16th. Patient lies in the same condition. Right side of face still paralysed; and the right arm completely so. Legs are not paralysed. The pupils are unequal, the right being slightly larger; and the right re-acts to light less than the left. There is generally deviation of the eyeballs to the *right*. No squinting. No optic neuritis. Temperature 102°. Pulse 104. Respiration 46. Bowels were opened with an enema.

3 p.m. Mr. Golding-Bird met Dr. Pye-Smith to discuss the advisability of trephining; but it was decided not to operate.

March 17th. Patient rallied considerably last night. He recognised his mother, and spoke a few rational words to her. This morning the favourable change is still apparent. He is evidently partially conscious. He frequently follows with his eyes the movements of persons around him. He has distinct movement again in the right arm, though it is very slight. He lies on his back, but his head is still turned persistently to the left. The temperature rose to 103° last night; it is now 102·2°. The pulse is 114. Respiration 58. Pupils equal, and react equally.

March 18th. The patient remained in the same semiconscious state all yesterday and last night. He recognised his friends, and put on a pained expression if they moved from his bedside. The pulse and respiration, however, increased as the night came on, the former becoming very fluttering; and he died at one o'clock a.m. this morning. He vomited shortly before his death. There were never any convulsions.

*Post Mortem Examination.*—There was general suppurative meningitis, a quantity of greenish yellow lymph lying beneath the arachnoid chiefly in the interpeduncular space and along the Sylvian fissures. The brain was considerably softened around the lateral ventricles, but there was no obvious reason for the unilateral paralysis. The surface of brain in contact with the left petrous bone showed no signs of inflammation. After removal of dura mater, a fissured fracture was discovered running across the left petrous bone obliquely forwards and inwards. It was entirely isolated, extending from the groove for the lateral sinus to a little behind the foramen spinosum, and crossing the petrous bone just external to the internal auditory meatus. The posterior wall of tympanum was remarkably thin and fenestrated, no doubt the result of old ear disease; while its cavity was partly filled with clot, which extended from the neighbouring sinus. There was no general thrombosis of the sinuses, nor suppuration in the neighbourhood of the fracture. The membrana tympani had a large perforation.

The whole of the lower lobe of the left lung was completely collapsed and airless. Other viscera normal.

*Remarks.*—We are indebted to Mr. Ricketts for the careful clinical report given above. The chief interest of the case lies in the isolated basal fracture. In his recent lectures published in the *Lancet* of Feb. 4, 1888, Mr. Arthur Hare, of Edinburgh, has explained at length the views of Von Wahl on fractures of the skull, especially those involving the base. According to this observer, when a force is applied to the periphery of the base, a fissured fracture occurs in the line in which the force is applied, or parallel to it. Whether such a fracture will extend up to the seat of injury or not, depends on the amount of force applied. Hence the above case, and similar

ones recorded by Von Wahl and Hare, may be looked upon as the first step in the building up of the more ordinary types of fracture in which much greater violence has been applied, and "the complexity of the lesion is apt to mask the manner of its origination."

It might be argued that the brittleness of the bone resulting from the old ear disease, rendered it more liable to break under a slight injury; but such an objection does not affect the question of the direction and limitation of the fracture, which are the points most worthy of note.

Mr. Hare is careful to show that the views above given in no way set aside the radiation theory of Aran, described in most of our text-books (Hulke, System of Surgery, p. 588). On the contrary, they tend to support it, but at the same time offer a somewhat different explanation deduced from the observation of the earlier stages of fracture, or those produced by the slighter forms of injury. An abstract of Von Wahl's Paper will be found in the *Medical Recorder* for March of this year.

J. H. T.

## CASE OF PRIMARY PROSTATIC ABSCESS, WITH SECONDARY PYÆMIA.

D—— M——. Age about 60. Occupation, time keeper at a yard.

Admitted May 14th, 1888, for pain in the abdomen, and a temperature of 104°. *History:* Has been ill 4 weeks, mostly pain in abdomen. Has for about 4 weeks been unable to pass his urine; has had to have it drawn off with a catheter twice a day; has not been sick; has had some pain in passing motions; bowels have not been opened for 4 days. No history of rheumatic fever obtainable; no history of gonorrhœa; says he has hardly slept on account of pain.

*Condition on admission.*—Pale, no jaundice, anxious, weary expression, rather drowsy, keeps his eyes half open; eyes sunken; groans occasionally; no headache. T. 104, P. 130, R. 55. Abdomen moderately distended, does not move with respirations, rather tympanitic; no spots, no enlargement of spleen; no dulness over region of bladder. Pressure sometimes relieves pain, sometimes aggravates it. No tumour to be felt.

*Diagnosis.*—?Typhoid. Examined per rectum; loaded with fæces; prostate very large, soft, doubtful fluctuation; some tenderness, but not much; no redness, tenderness, or swelling about perinæum. ? Abscess of prostate. The sudden onset of difficulty in micturition, the difficulty in defæcation, and the soft enlargement of the prostate were considered in favour of abscess. The absence of marked tenderness was not considered of much importance. As in a previous case, there was no tenderness on digital examination. Tongue furred; breath sounds healthy; no bruit heard.

Patient was put on milk and barley water, and was ordered a soap enema, and warm fomentations were applied to abdomen. Patient seemed slightly relieved, did not groan so much, and seemed to dose with his eyes half opened.

May 15.—At 1 a.m. pain was rather worse. A catheter was passed with some difficulty, and ʒ x of urine drawn off. Smells slightly ammoniacal; acid reaction. Deposits small amount of pus. Slight ring of albumen. No flow of pus occurred during the operation. Temp. 101. Pulse 100, full. Answers questions in a weary tone. Feels in want of sleep, but cannot sleep. Breath sounds harsh; cardiac sounds indistinct. ? Cystitis.

Patient was ordered—

Pot. Brom. grs. x.
Tinct. Hyos. ♏ xx.
Infusi Buchu. ad. ʒi t.d.s.

A poultice, smeared with Ext. Belladonnæ, Ext. Conii and glycerine in equal parts, was applied to abdomen and perinæum, and a hypodermic

injection of a $\frac{1}{6}$ of a grain of morphia was administered. The first enema brought away a good deal of fæces, but a second, given 9 hours later, brought away nothing. Patient has not been sick.

Patient has been in less pain, has dozed a little during the night, but does not look any better. Has passed his urine and fæces under him. At midday patient was found to have lost all voluntary power over the left arm and leg. No deviation of eyes or tongue; no facial paralysis; knee jerks absent on both sides. There was some resistance to passive movement in the paralysed limbs. A faint systolic bruit can be heard at apex, but with some difficulty, owing to harshness of the breath sounds.

*Diagnosis.* — ? Ulcerative endocarditis, with cerebral embolism. 8.30 p.m.; abdomen rather more distended; urine drawn off. Temp. 106° in rectum; twitchings about the right arm; eyes have strings of mucus in them. Dr. Pavy, in the afternoon, ordered M.M. with $\frac{1}{2}$ M.S. ʒi t.d.s.

Patient is confused in his mind. He died next morning at 10 a.m.

*Abstract of Autopsy.* — Abscess in prostate, considered to be primary, followed by general pyæmia. There was a localised centre of suppuration in the wall of the left auricle which had opened into the cavity. The other infarcts were considered by Dr. Pitt to be either secondary to this, or all were directly secondary to the prostatic abscess. Infarct in thyroid. Small abscess in left tonsil. Infarct in right bronchus. Kidneys presented numerous points of suppuration on surface, and small abscesses in substance. Spleen soft and pulpy. Infarcts in liver. Lungs very œdematous. Small septic thrombus in wall of left ventricle. Some suppuration and ulceration on mitral valve. Extravasations and small ulcers in stomach. Brain showed two clots in left anterior and middle cerebral arteries, each producing patches of softening, the former on inner surface corresponding to the ascending frontal convolution in the gyrus fornicatus; the other at the bend of the fissure of Sylvius, and at its upper margin, and the contiguous temporo-sphenoidal convolution. Softening limited to the cortex. Softening of the corpus callosum and caudate nucleus on the left side.

H. P.

## MULTIPLE SARCOMATA.

Rebecca R——, æt. 45, was admitted to the Bolton Infirmary, under the care of Mr. Gillibrand, January 9th, 1888, for persistent vomiting.

*Family history*, unimportant; had been married 15 years; seven children, six of whom are living; one miscarriage before the birth of her second child; menstruation regular up to previous June, since when she had seen nothing till admission, when she again began to menstruate.

Patient had always enjoyed good health, but at the end of October last was seized with frequent vomiting, which was preceded by pain in the left side. This lasted five days, and then there was an abatement of the symptoms for three weeks, after which they again set in, and continued, with more or less severity, up to time of admission. Previous to October she had been fairly stout, and since then had been getting rapidly thinner.

*On admission* she was much emaciated, with dry, shrivelled skin, and some bright petechiæ scattered over the chest. These she had not noticed until her attention was drawn to them. Cardiac sounds normal. Dulness at left apex, with absence of respiratory murmur and vocal fremitus. Temperature normal. No headache. Optic discs normal. No abdominal tumour to be felt; aortic pulsation quite perceptible. Vaginal examination showed the os to be rather low down, expanded in all directions, and quite smooth. The uterus was freely moveable, and the ovaries could not be felt. Urine normal.

There was a small impressionable tumour on the upper surface of the left clavicle, about its centre, painful on pressure, and a hardish mass occupying the position of each thyroid lobe; that on the right side being about the size of a large horse-bean, and that on the left twice as large. These were not painful on manipulation, and no other such tumours were to be found about the body. Vomiting occurred frequently, quite irrespective of the ingestion of food, and was always preceded by a sensation in the throat, in the neighbourhood of the thyroid.

The vomiting continued, but varied considerably from day to day, and was generally more severe in the early morning. On January 22nd she first complained of headache, and the next day had two epileptic seizures, the left arm being chiefly implicated. She had never been previously affected with anything like a fit. On the 24th the right optic disc was found to be slightly blurred, the left being normal, as were also the fundi and vessels. On the 31st she was allowed to get up, not having vomited for a week, but was immediately seized with sickness and headache. From this time onward the headache persisted, being chiefly confined to the upper occipital region; and she was troubled with coughing, hiccough, and vomiting, although she was able to take her food fairly well. February 9th, right pupil dilated; 10th, another epileptiform fit, followed by paresis of the left arm. Slight bronzing of the skin was noted, but it did not increase. Cardiac impulse felt outside the nipple line, and on 19th it is reported as above the level of the nipple, in a line with the anterior axillary fold; pulse, 136; temperature, normal; respiration, easy. A few more petechiæ had appeared upon the abdomen, and albumin was found in the urine for the first time, but not in any considerable quantity, and after three or four days it disappeared altogether. Patient began to pass things under her at about this date. March 1st, both pupils dilated; borders of optic discs very indistinct. 12th, temperature generally sub-normal; emaciation much increased; pulsation of abdominal aorta clearly visible; no abdominal tumour could be felt; the pelvic region, however, was too tender to allow of palpation; food taken freely, but in small quantities at a time. April 3rd, extremely low; could not talk; gaped at frequent intervals; perspired freely; temperature, 97; pulse, 140; optic discs pale, ill-defined, and fluffy at margins; small retinal hæmorrhages in both eyes. She rallied slightly for a day or two after this, and then gradually sank, dying on April 12th.

*Post-mortem* examination revealed a large tumour involving the base and upper part of the left lung; three firm tumours, about the size of horse-chestnuts, in the body of the pancreas, the rest of the organ being narrow and shrunken; a white, softish mass, as large as a hen's egg, replacing each supra-renal body; another mass, made up of small, solid and semi-fluctuating tumours, occupying the position of the left ovary; and a small cyst in connection with the right ovary. The cerebral hemispheres were quite healthy in appearance; but in the cerebellum, at its junction with the pons, was a soft tumour the size a pigeon's egg, which extended to the surface, at the under part of the left lobe, having the appearance of a patch of softening.

The fourth ventricle and commencement of the spinal canal were much expanded, but communicated freely with the subarachnoid space. All these tumours, as well as those of the clavicle and thyroid body, and one found on the inner surface of the second left rib, have been examined, microscopically, by my colleague, Dr. Yates, and prove to be small-celled sarcomata.

The stomach was small and contracted, otherwise healthy, as were also the intestines. All the other viscera were normal, and the liver

weighed forty-eight ounces. No enlarged lymphatic glands were found. Unfortunately, the sympathetic system was not examined; nor was it noticed whether the mediastinal growth involved the pneumogastric nerve, or pressed upon the thoracic duct.

From the onset of symptoms, it seems probable that the ovarian trouble was of the longest standing, and that the brain lesion occurred comparatively late. The mediastinal growth existed at the time of admission, but, judging from the rapid emaciation, was, in all probability, preceded by the post-peritoneal mischief.

E. C. KINGSFORD.

May 7th, 1888.

# Correspondence.

*To the Editor of* GUY'S HOSPITAL GAZETTE.

## ON BEES.

DEAR SIR,—I am not sufficiently well up in the habits of these busy creatures to say whether this is a well-known fact or not; but a few days since I was watching a bed of crocuses, and my attention was attracted by a bee which alighted on a cluster of white flowers. There were seven clusters of blue, white, and yellow crocuses. This bee, which I will call "A," went to each of the seven white clusters, left the bed, and alighted, I saw, on another white cluster. Another bee, "B," did exactly similar. Another, "C," came first to the white, found no honey there, left the white (without, mark, trying any other white flower), and alighted on a blue cluster, and then kept to that colour. Others, D and E, came and alighted—the former on the blue, and the latter on the yellow, and kept rigorously to their colour. It is well known that bees keep in their several excursions to similar flowers, but I was surprised to see them keep to the same colour. In the case of C, the fact of his leaving the white colour showed that he reasoned, that if one white was empty, he who emptied it kept to all the white; so he changes his colour, and alights on the blue clusters of crocuses.

The only objection is, whether in that excursion he had been to white flowers previously on that bed, or if the one I was watching was the first. In the former case he would mix the honeys; in the latter it would support my supposition.—I am, Sir, yours truly,

F. A. O.

*To the Editor of* GUY'S HOSPITAL GAZETTE.

DEAR SIR,—I should like to ask, through your columns, whether those substances, which go by the name of inorganic ferments, are really proved not to be of organic structure?

Is it certainly known that they are not made up of very minute organisms, much smaller than any known of at present?

An alcoholic extract of some of these ferments can be made which possesses all their properties, it is true; but we know of certain organisms that will retain their vitality in strong acids, alcohols, solutions of various substances, and under such physical conditions as seem very antagonistic to most known forms of life—*e.g.*, temperature.

These inorganic ferments seem to hold a position between living organisms and inorganic matter that is highly interesting. It may be that they have not attained to such life as is manifested in protoplasm; but they exhibit life-like phenomena, which no other inorganic substance possesses.

They, apparently, can increase indefinitely, under suitable conditions; so that a very small initial quantity can effect any amount of work, and it is difficult to conceive this power as belonging to any but living matter.

Again, they act upon the substance they ferment, and change it into other forms, as is done by living creatures to the substances they live upon, though it is also similar to a purely chemical action, being thus akin, in action, either to such a body as sulphuric acid, or to yeast, or to both of them.

It also seems possible that some of these ferments may be of fundamental necessity to certain forms of life on the earth; perhaps to the assimilative processes of plants. In this respect they are like certain germs which are believed to convert nitrogenous elements in the soil to the use of plants, and must thus have existed before plants did.

In fact, the phenomena exhibited by these ferments are so strikingly akin to those manifested by the lower forms of life, that one wonders whether they are akin to the primogenitors of protoplasm; and if we deny that they possess a living structure—such as protoplasm—we must then believe that they are here, in Nature, non-living substances exhibiting so much of the phenomena of life as to form a possible link between the organic and the non-organic kingdoms.

I think it probable that no definite line could have been always drawn between these two states of being, and that these ferments, or some similar substances, stand, or have stood, on the borderland, where complex, chemical action becomes life.—I am, Sir, yours, &c.,

HAROLD G. DIXON.

# Passim.

We notice that two matches, one against Richmond and another on Wednesday against Chiswick Park, have been scratched through Guy's men being unable to get up a team. This fact is much to be deplored, and seems rather to suggest that the old keen sportsman-like spirit is beginning to fall away. When a team scratches a match the day before a Cup Tie, things apparently have arrived at about as bad a pitch as they can well be.

The Cup Team was selected on Tuesday morning, and consists of the six old members, Messrs. Colclough, Featherstone, E. J. D. Mitchell, W. G. Mitchell, J. W. Roberts and Busteed, with J. C. Shenton, H. A. Smith, H. B. Yorath and H. B. Rygate as the new men, leaving the eleventh place to be selected from W. H. Steele, T. S. Jackson, H. Wilks, E. Budge and G. M. Pratt after the Chiswick Park match. The Chiswick Park having been scratched at the last moment through only three of the Cup Team being able to play, our chances for the first round of the Hospital matches, therefore, do not look by any means easy.

We have to congratulate the following gentlemen on their appointments :—W. F. Clarke, M.R.C.S., M.B., B.S. Lond., has been appointed House Surgeon to the Newport and County Infirmary. F. W. A. Bryden, M.R.C.S., L.S.A., has been appointed Assistant House Surgeon to the Rotherham Hospital. Robert Cuff, M.B. Lond., M.R.C.S., has been appointed Hon. Surgeon to the Scarborough Hospital and Dispensary.

There has been a slight rearrangement of the beds on the surgical side. Mr. Davies-Colley is going to have, in Lydia, the beds that were previously under the charge of Mr. Bryant, whilst Mr. Lucas will take over Mr. Davies-Colley's beds in Lydia and Charity.

We beg to acknowledge with thanks the receipt of the following :—The Birmingham Medical Review, from Dr. H. Manley. The Report of the Bolton Infirmary, from Mr. Kingsford. The South African Gazette, which we receive weekly.

We may now, indeed, cry that we have a world-wide circulation. In The South African Gazette, which is edited by Mr. Darley-Hartley, an old Guy's man, mention is made of our portrait of Dr. Carrington. "The current number of the Guy's Hospital Gazette contains a life-like portrait of the late Dr. Carrington, whom most Guy's men will remember with regret." The same paper, too, has honoured us by reprinting one of our poems.

We have received the following paragraph from the Senior House Physician, Mr. Theodore Fisher :—

It may interest some of the readers of the Gazette to know that a female sparrowhawk was caught in the House Physician's sitting room on May 11th. The bird was seen to follow a sparrow through the open window, and was caught by one of the workmen occupied in cleaning the clinical building. Sparrows are not the only birds to be seen even in the heart of London. Sea-gulls are not infrequently seen as high up as London Bridge, and the kingfisher has several times been seen in Hyde Park. In the Guy's grounds I have seen starlings, swallows, a pair of wagtails, a redbreast, a chaffinch, and once a fine specimen of a song-thrush, that had apparently just been killed by a cat. A summer or two ago, a common whitethroat was caught in the chemical laboratory, in which a severe injury to one eye tended to shew that it had chosen the laboratory as a place of refuge from the sparrows. Our present second House Surgeon tells me that he once saw a kestrel about the Hospital, and that he pointed the bird out to Dr. Moxon, who also recognised it. No doubt, had those of us who are bird lovers nothing better to do than to be continually keeping watch on the trees in the Park, or gazing into the air for hours at a time, we should rapidly add to the above list of Guy's feathered visitors. I may mention here in connection with gazing into the air that it is surprising what a number of birds may be seen even in London flying overhead. A few days ago I was asked by an Hospital Surgeon if I had ever seen a heron; I was able to reply that I had seen two that afternoon flying over one of the suburbs.

Our readers will be pleased to hear that the Monument to the late Dr. Carrington has been completed and erected. The following letter has been received from Mrs. Carrington :—

143, Lavender Sweep,
Clapham Common.

My Dear Sirs,—I had intended to thank you all before this for the very handsome monument which has been erected to the memory of my dear son. Please accept my sincere and heartfelt thanks, and believe me, I am utterly unable to adequately express my appreciation of the generous motives which prompted you all to show such an everlasting tribute of your regard. You can, however, well understand that this is a subject too painful for me to dwell upon, and you will, I am sure, excuse this brief but grateful acknowledgment of your good feeling.—Believe me, yours sincerely,

LOUISA CARRINGTON.

## NOTES ON A CASE OF FRACTURED SPINE, WITH PECULIAR WATERY EVACUATIONS.

Frederick King, æt. 43, a porter, was admitted into Accident Ward, under Mr. Bryant's care, on March 19th. He had been knocked down by a loaded waggon and doubled up forwards. The waggon, most probably, did not pass completely over him, but he was extensively bruised on the left side of the body.

*On Admission.*—Patient was in a state of extreme collapse, and complained of pain in the back. He was rolled over and laid on his right side and a gap was noted in the spines of the vertebræ, which, at the time, was thought to be at about the 9th or 10th dorsal vertebræ. There was a large bruise on the left side extending from a little below the axilla to the trochanter; and a subcutaneous hæmatoma, which increased rapidly in size soon after admission, existed in the neighbourhood of the bruise. He complained of numbness and tingling of the legs, in which there was impaired sensation and also partial paralysis.

A catheter was passed and the urine was drawn off; there was no blood mixed with it. No evidence of fractured pelvis.

An ice pack was ordered to be placed over the loin in the region of the hæmatoma, and milk and beef tea were ordered as diet.

From his admission to March 25th, he progressed fairly well. He was lifted from his bed on two occasions, an interrupted mattrass being used at first for nursing purposes, but, proving a failure, a Pocock's air bed was afterwards substituted. He passed during this time normal loose motions. He suffered from a good deal of pain in the back and sleeplessness, and a hypodermic injection of morphia was given to him each night.

On March 25th. Patient is fairly well, does not complain of much pain in the back. He passed, per anum, to-day, about a pint of liquid, having a quantity of flocculent mucus in it, the remainder being quite thin and like slightly opalescent water. It has no fæcal odour; specific gravity 1·10; contains a trace of albumen; is faintly alkaline; and, microscopically, nothing definite is seen.

Abdomen is somewhat tympanitic.

From March 25th to April 1st. Patient had not a normal motion, but continued to pass about a pint of this watery fluid daily. During this time the temperature was somewhat raised, reaching 101° on several occasions. The hæmatoma presented signs of breaking down, the skin over it becoming red and œdematous. On April 1st it was aspirated and 17 ounces of fluid blood were withdrawn. An enema was also administered on this date as abdominal pain and fulness had increased. Some fæculent matter was brought away, and from this time he passed normal loose motions until two days before his death, when he began to pass some of the peculiar fluid mixed with fæces.

A patch of skin over the hæmatoma sloughed some days after the aspiration, and an incision being made the contents were turned out. The wound was dressed antiseptically with iodoform gauze, a considerable amount of suppuration

succeeding. He died on April 20th. The immediate cause of death was probable exhaustion, brought on by the suppuration, as he gradually became weaker, becoming delirious towards the end. His temperature ranged between 99° and 101° F. During the last three weeks of his life he partially regained both the sensation and the power of motion of his legs.

*At the Autopsy.*—A dislocation of the third lumbar vertebra backwards with fracture of it and the second lumbar was found; also the remains of a hæmorrhage into the spinal canal at the same place. The intervertebral disc between the two vertebræ was ruptured, and masses of callus existed both in front and behind the bodies of these vertebræ, but the callus did not seem to compress the cauda equina. The intestines were somewhat distended and slightly injected throughout the greater part of their length, and presented no signs of rupture. There was no marked peritonitis. The left common and internal iliac veins were thrombosed. The cause of this thrombosis was not very evident, but probably originated in the veins about the sacrum where the suppuration from the hæmatoma reached.

The cause of the peculiar evacuations was generally thought to be due to a paralytic secretion from the intestinal glands.

The temporary paralysis of the legs was, no doubt, due to the pressure of the hæmorrhage on the cauda equina, and, as the blood was absorbed, the power of the legs returned.

W. E. T.

## INTER-HOSPITAL CHALLENGE CUP TIES.

### Guy's Hospital v. Middlesex Hospital.

Just before going to press the result of the competition between the above has been made known, Middlesex receiving a crushing defeat by three wickets and 295 runs. The innings of Guy's, viz., 363 for the loss of seven wickets, is the highest yet made since these contests have been established. The score of 124 made by Colclough is also the largest individual one. Curiously enough, the 108, the previous best, was made by Scott during last season. Mitchell, Yorath and Rygate bowled well for Guy's. In Colclough's innings he made thirty 3's, chiefly boundary hits, and one 4.

## NOTES ON PATHOLOGY.

By Dr. R. E. Carrington.

*(Continued.)*

### LIVER.

#### Hydatid of Liver.

This is the most common seat of the parasite; perhaps the next is the connective tissue of the pelvis; then the peritoneum, then the kidney; the brain is very rarely attacked. The enlargement is variable in amount from a tumour the size of a hazel nut to one filling the abdomen.

It is not uniform. It is commonly situated in the right lobe (frequently in the upper and back part). It may grow in any direction, but generally downwards. Its surface is smooth, and there is not usually any peritonitis over the tumour.

If near enough to the surface there may be fluctuation, and the hydatid fremitus may be got. (If three fingers are laid over the tumour and the middle one is struck sharply a trembling sensation is said to be experienced in the outer two.) *N.B.*—There is not the least doubt that this physical sign is common to all cysts tensely full of fluid.

There may be more than one hydatid in the same liver.

*Hydatid disease may terminate as follows:—*

1. Spontantaneous cure is rare. It may arise—
   - (*a*) From bile getting into the cyst, from ulceration into a duct. (*N.B.*—The more common result of this occurrence is suppuration of the cyst, and often in consequence multiple pyæmic abscesses in the liver.)
   - (*b*) From calcification of the primary cyst.
   - (*c*) From the secondary hydatids within growing out of all proportion to the primary cyst.
2. It may open into the stomach or intestine. Rupture into the intestine is most favourable, and even into the stomach is generally favourable.
3. It may rupture into the pleura and set up a rapidly fatal pleurisy.
4. Sometimes adhesions form between the lung and pleura, and the hydatid opens into the lung, and is sometimes expectorated. Hæmoptysis is a frequent result, and the disease generally ends fatally by destructive pneumonia or gangrene.
5. It may rupture into the pericardium, and this is rapidly fatal.
6. Rupture into the peritoneum. The usual result is acute peritonitis; but (and this probably applies to the pleura as well) it seems that the fluid itself will not set up peritonitis. It probably only arises when secondary hydatids are extravasated. Hydatid fluid absorbed by peritoneum frequently sets up urticaria.
7. Rupture externally. This is also unfavourable from suppuration of cyst and consequences, or hæmorrhage.
8. Rarely it may open into the urinary passage.

9. Into portal vein, the result being pylephlebitis. Into vena cava, the result being hydatid in heart.

Hydatid may prove fatal in other ways. By general marasmus and asthenia; by suppuration of cyst, with or without the formation of pyæmic abscesses; by exogenous production of cysts which may press upon other organs—*e.g.*, one pressing on the spinal cord.

### Fatty Liver.

Fatty liver occurs under the following conditions:—

1. General obesity.

2. Wasting disease, especially phthisis; but it may be found in any chronic bedridden subject.

3. Chronic alcoholism.

The explanation that is offered is, that in obesity too much fat is produced and stored up in the liver; and in the other case (phthisis), the respiratory function is at so low an ebb that the fat is not destroyed, and, circulating in the blood, is taken up by the liver cells.

*N.B.*—The hepatic cells have an especial affinity for fat, and inasmuch as it is brought to them by the portal vein, the early stage of fatty infiltration is seen in the outer zone of cells. This is "peripheral fatty infiltration."

In the extreme stage all the cells are filled with fat, and the liver is uniformly of a pale bright colour. In two conditions, pregnancy and lactation, only the zone of cells surrounding the intra-lobular vein is fatty; this is called "central fatty infiltration."

The explanation is that in these conditions there is a large demand for fat.

The liver is caught at the vanishing point of fat. (Goodhart.) The fat being absorbed from the central cells, the granules are passed on from the peripheral, and none is supplied to make up the deficiency.

Chronic alcoholism probably acts in the same way. Alcohol is readily absorbed and oxidized. It is understood that chronic alcoholism produces fat not only in the liver but in other organs.

*Liver cells.*—The change in the liver cells is described under two headings:—"Fatty infiltration" and "fatty degeneration." In the former, fat globules are simply deposited in the liver cells; in the other, the nucleus and protoplasm of the liver cells becomes granular and finally destroyed.

*Fatty infiltration* occurs in wasting disease, obesity, and in chronic alcoholism. The cells in this case simply take up fat granules, and these may run together; the final result being that the liver cells are simply full of fat. The nucleus becomes hidden, and a section of liver looks like one of adipose tissue.

*Fatty degeneration* occurs in acute yellow atrophy, in phosphorus poisoning, in anæmia, in some of the cells in cirrhosis of the liver, and in acute alcoholism.

*Naked eye appearances* of fatty liver:—Liver moderately and uniformly enlarged; pale buff colour; anterior border rounded off; consistence soft and flabby; and on section either uniformly pale buff without lobulation, or if the change is partial the outer parts of the lobule will be yellow, the inner normal in colour. It will be distinguished from the nutmeg liver by being very readily lacerable.

### Hypertrophy of the Liver

is met with in diabetes, in leukæmia, in Hodgkin's disease, and in cases in which part of the liver has been destroyed by syphilitic disease or abscess—*e.g.*, the right lobe destroyed by specific disease weighed 2 to 3 ozs., the left 46 ozs.

Finally, as a physiological condition, some individuals have a larger liver than others although the body weight is normal.

Here the question is raised as to whether the liver cells themselves increase in size. Cohnheim and Ranvier say that in diabetes they do, and that they contain more glycogen. Rindfleisch thinks that perhaps they do. Other pathologists, having in view the variable size of the liver cells normally, leave it an open question.

*N.B.*—When the enlargement is uniform it is not of any extent, neither is it of any clinical importance.

*(To be continued.)*

## REST AND PAIN.

*(Continued.)*

Foreign bodies in a joint, otherwise healthy, may cause great trouble. The pain caused by them, whatever their nature, is very severe and sickening—coming on when walking and in certain positions of the joint. The explanation supposes the nipping of the synovial membrane between the articular surface and the loose body. Another and more probable one is as follows:—In certain positions the joint, so to speak, gapes, allowing the loose body to be drawn in between the two bones; when the joint is rapidly straightened, as in the case of the knee while walking, the two articular surfaces are prevented from meeting, and the joint ligaments are violently stretched, causing the intense pain and effusion. This explanation is supported by the effusion and pain incident on a sprain. The sensibility of the ligaments is peculiar, and called into action when an attempt is made to stretch them—that is, when their function, *par excellence*, is tampered with. Ligaments which are stretched are quite useless, and they show their resentment of this treatment by the pain they give rise to on stretching; while they may be cut almost painlessly. Inflammation of bones is peculiarly painful on account of the unyielding nature of the tissues around; the proof lying in the relief given by drilling or trephining.

The pain of periostitis, and many other diseases, is very largely augmented at night; so much so that the subjects of syphilitic periostitis are often willing to walk about for half the night, rather than court the suffering they know bed will bring. The warmth may cause the hyperæmia on which this depends; but a more potent reason is the fact that when the body is lying quiet and motionless, and the vital functions are at this period of least stimulation, the blood is at liberty to be withdrawn from the remainder of the body by and to the area

of inflammation, congesting its already overcrowded capillaries and causing the increased pain. While discussing this subject with Mr. Jacobson, he mentioned the case of a girl with well-marked disease of the left great trochanter, the enlargement being very obvious (5 inches as compared with 3 on the healthy side). The pain was much worse at night. "But," said the practitioner who brought her up, "how do you account for the diminution of the pain, when the girl uses her limb on rising in the morning?" At first sight this seemed paradoxical. But the reason is obvious. At night the blood, not wanted elsewhere, crowded to the diseased part; but in the morning, when more blood was required for the carrying on of the increased metabolic changes consequent on walking, in spite of the attraction of the diseased left great trochanter, the balance was distinctly in favour of less blood going to the seat of lesion, and hence the diminished suffering.

Strangulated hernias are characterised by pain, and the same is the case with cancer of the breast. In the latter case we sometimes find very little pain, but more often there is much aching, with radiating and shooting pain. Manipulation of the tumour usually causes lancinating, "striking" neuralgic pain. The cause seems to be in the state of tension of the whole tumour, consequent on the cicatrizing process proceeding in the centre of the growth.

In the case of hernia we have two distinct localities in which we expect pain. (1) *Local pain* over the tumour. Mr. Birkett says, the tumour is painful to the touch, and so say the text books. It is important, however, to remember that there may be *no* pain locally. Mr. Bryant once reduced by taxis a hernia which had been strangulated for nearly 100 hours, without the man's being aware of the fact. But the following is still more remarkable ['Lancet,' Jan. 16, '88] :—Mrs. H. had severe abdominal pain left side and around umbilicus; on previous day vomiting and constipation, when sympathising friends administered strong purges; lump in left groin, which was *painless*, so that patient made no mention of it spontaneously; no impulse or pain on manipulation; vomiting became stercoraceous, and an operation follows. Tumour was largely omental, but with small knuckle of gut tightly strangulated. This woman recovered. Her case illustrates the possibility of no local pain, and also very well the second point, viz., that umbilical pain is very constant. It may be severe enough to mask the real trouble, especially as it is one of the earlier signs of strangulation. People sometimes present themselves for operation for strangulation, whose abdominal regions bear unmistakable signs of the blistering and other active treatment, which has been aimed at the supposed colic. The curious position of the pain appears to depend upon the position of the large underlying plexuses of nerves, which are irritated by the strangulation. Sudden diminution of pain in these cases is a serious symptom, indicating extreme collapse of the patient, and also local destruction of the parts strangulated.

*(To be continued.)*

# Sport.

## CRICKET.

### SURREY COLTS v. GUY'S HOSPITAL.

This, the opening match of the Cricket season, was played at the Oval on Wednesday, May 9th, and resulted in a very creditable victory for us by 97 runs, principally due to a capital stand made by W. J. Scott and J. C. Shenton, and the successful bowling of E. J. D. Mitchell, who took 5 wickets for 18 runs. The Colts, winning the toss, went in first, and were all out for 78, Wood, for the last wicket, putting on 22 in a very short time. Roberts brought off 2 gallery catches at slip, and, aided by Mitchell's bowling, the score was much less than was expected. Guy's responded with 175, Scott being quite at home for 55, and J. C. Shenton assisted with a steady 49, and Cruikshank was responsible for 20. In the 2nd innings of the Colts our bowling was completely collared, and, thanks to 3 catches being missed, one wicket only was down at time for 84, the only excuse being that we had 10 men in the field owing to Ingram having to leave to catch a train. The account must not close without a word of congratulation to Cruikshank for his successful treatment of a blow on the knee, especially when the recipient happens to be on the opposing side and a good bat.

SURREY COLTS.

| | | | |
|---|---|---|---|
| Swinfen, c Scott, b Cruikshank | 16 | c Shenton, b Cruikshank | 36 |
| Powley, b E. J. D. Mitchell | 0 | not out | 32 |
| S. Lohmann, c and b E. J. D. Mitchell | 0 | not out | 7 |
| Boxall, c Roberts, b W. G. Mitchell | 2 | | |
| Davis, b W. G. Mitchell | 0 | | |
| Deddick, retired hurt | 4 | | |
| Salmon, c Roberts, b E. J. D. Mitchell | 12 | | |
| Young, b E. J. D. Mitchell | 0 | | |
| Knight, run out | 16 | | |
| Gray, b E. J. D. Mitchell | 2 | | |
| Wood (Captain), not out | 22 | | |
| leg byes, 1 and 3 | 4 | Extras | 9 |
| Total | 78 | For 1 wicket | 84 |

GUY'S HOSPITAL.

| | |
|---|---|
| W. J. Scott, c Salmon, b Boxall | 55 |
| F. Colclough, b Gray | 1 |
| J. H. Roberts, b Salmon | 12 |
| J. C. Shenton, c Swinfen, b Salmon | 49 |
| W. G. Mitchell, c Sub, b Boxall | 0 |
| J. D. Cruikshank, c Gray, b Boxall | 20 |
| E. J. D. Mitchell, run out | 12 |
| H. A. Smith, not out | 12 |
| R. Ingram, c Swinfen, b Boxall | 0 |
| H. B. Rygate, b Gray | 6 |
| J. H. Busteed, c Swinfen, b Gray | 6 |
| Extras | 8 |
| Total | 175 |

## GUY'S HOSPITAL v. CRYSTAL PALACE.

This match was played on a capital wicket at the Crystal Palace on Saturday, May 12th, and resulted in a draw. The Crystal Palace made the large total of 327, Fox scoring 131, C. Mitchell 48, and F. H. Horniblow 34. Fox's innings was remarkable for his hard drives, which some of our men evidently disliked, and although he gave 3 chances, was a good display of steadiness and of power when an opportunity occurred. E. J. D. Mitchell bowled untiringly, keeping up his end very well, and he was unlucky in not getting more wickets, Fox being missed off him from 2 consecutive balls; and Colclough appeared in a new line by getting 4 wickets at the end of the innings. On Guy's going in for an hour and a half's batting, they lost 2 wickets for 85. F. Colclough and E. J. D. Mitchell being not out with 34 and 30 respectively. The fielding of our men was anything but good, the long innings of our opponents evidently telling on most of them.

CRYSTAL PALACE.

| | |
|---|---|
| J. Dives, b Yorath | 15 |
| W. F. Noakes, b W. G. Mitchell | 4 |
| H. Aste, b E. J. D. Mitchell | 0 |
| C. F. Fox, c Smith, b Colclough | 131 |
| F. H. Horniblow, b E. J. D. Mitchell | 34 |
| C. Mitchell, b H. B. Rygate | 48 |
| R. Stevens, b Colclough | 10 |
| W. F. Umney, c Roberts, b Colclough | 6 |
| S. Cosens, b Colclough | 20 |
| E. N. Donesthorpe, b Yorath | 1 |
| A. W. Gardner-Woolloton, not out | 25 |
| Extras | 25 |
| Total | 327 |

GUY'S HOSPITAL.

| | |
|---|---|
| F. Colclough, not out | 34 |
| W. H. Steele, b Stevens | 2 |
| H. A. Smith, b Stevens | 0 |
| E. J. D. Mitchell, not out | 30 |
| Extras | 19 |
| Total | 85 |

W. G. Mitchell, N. B. Yorath, J. H. Roberts, J. W. Busteed, J. C. Shenton, H. B. Rygate, and R. Henderson did not bat.

## GUY'S HOSPITAL II. v. KING'S COLLEGE II.

Played at Wormwood Scrubbs, on May 9th, and resulted in a win for us by an innings and 25 runs. W. K. Steele played a capital innings of 26, not out. The bowling of Yorath and Henderson was particularly good. Score:—

GUY'S HOSPITAL.

| | |
|---|---|
| T. S. Edwards, b Monkhouse | 10 |
| E. T. Budge, b Steward | 4 |
| W. E. S. Jones, b Steward | 6 |
| T. H. Yorath, b Robinson | 14 |
| W. E. S. Cobb, b Smith | 12 |
| E. P. Lulham, c Smith, b Robinson | 2 |
| W. K. Steele, not out | 26 |
| E. Hunt, b Shortlands | 3 |
| T. S. Stevens, b Smith | 1 |
| H. W. Webber, b Smith | 2 |
| R. Henderson, b Robinson | 0 |
| Extras | 14 |
| Total | 94 |

KING'S COLLEGE.

| | | | |
|---|---|---|---|
| H. W. Joyce, c & b Henderson | 0 | b Henderson | 15 |
| F. S. Penny, c Henderson, b Yorath | 7 | b Henderson | 5 |
| F. S. Flint, b Henderson | 0 | absent | 0 |
| K. Robinson, b Henderson | 0 | b Yorath | 1 |
| C. R. Steward, b Yorath | 2 | l b w, b Jones | 1 |
| R. S. Bernard, b Henderson | 1 | b Yorath | 4 |
| H. E. Horsford, b Yorath | 0 | b Henderson | 3 |
| W. R. Smith, run out | 1 | b Yorath | 1 |
| C. Shortlands, b Yorath | 0 | b Yorath | 1 |
| G. Monkhouse, b Yorath | 0 | not out | 0 |
| T. Edwards, not out | 3 | run out | 5 |
| Extras | 7 | Extras | 15 |
| Total | 18 | Total | 51 |

## GUY'S HOSPITAL II. v. WIMBLEDON SCHOOL.

Played at Wimbledon, on May 19th, and resulted in a defeat for us by 117 runs, due to the bowling of E. W. Bastard, the old Oxonian. Steele was the only one of our men to offer any resistance, and he played in excellent style for 22. Score:—

WIMBLEDON SCHOOL.

| | |
|---|---|
| E. W. Bastard, b Budge | 59 |
| H. Clarke, c and b Pratt | 3 |
| A. Turner, c Ellis b Sturges-Jones | 52 |
| H. Wilmot, run out | 0 |
| P. Ashburnham, b Sturges-Jones | 0 |
| L. Ashburnham, b Ellis | 3 |
| C. Saunders, b Sturges-Jones | 11 |
| G. Harrop, run out | 0 |
| P. Ateson, not out | 23 |
| H. S. Clarke, c Cobb, b Steele | 0 |
| R. Gillam, b Steele | 0 |
| Extras | 11 |
| Total | 163 |

GUY'S HOSPITAL.

| | |
|---|---|
| W. H. Jewell, b Turner | 0 |
| W. K. Steele, b Bastard | 22 |
| G. M. Pratt, b Bastard | 0 |
| W. E. Sturges-Jones, c Ateson, b Bastard | 1 |
| V. H. Ellis, b Bastard | 1 |
| E. Budge, b Bastard | 0 |
| H. Wilks, b Bastard | 0 |
| W. E. S. Cobb, b Bastard | 0 |
| C. Pratt, b Bastard | 2 |
| Evans, b Bastard | 4 |
| J. W. Jewell, not out | 10 |
| Extras | 9 |
| Total | 49 |

**Guy's Hospital Gazette,**
*JUNE 9, 1888.*

## NOTES OF A CLINICAL LECTURE BY DR. PITT, ON REYNAUD'S DISEASE.

This disease, though rare in a severe form, is by no means uncommon in a slight degree. The notes of a case, now in the Hospital, were given as follows:—

C. C., a woman, æt. 35, admitted into Miriam 31 for "attacks of blackening and numbness of fingers and great toes." There is nothing important in her previous history, except that six years ago she first began to suffer from "rheumatic pains" which have troubled her on and off ever since.

*Present disease.*—Five years ago patient first noticed something queer about her finger tips. This began in her left little finger, which turned white as far as first joint.

This, in time, extended to the other fingers of both hands, and then to the hands themselves. They gradually became blue, with red spots on the hands between the blue patches. The fingers get the nearest approach to black, but the hands also become discoloured as far as wrist joints. There is first pain and pricking of the hands and fingers followed by numbness, so that she has no sensation in them, and can do no work. They remain in this state, sometimes half an hour, sometimes as much as two hours. When they begin to come round they become very painful, red, hot, and a little puffy. As the attack passes off the hands do not at once recover their colour uniformly, but become mottled with rather bright pinkish spots. The attacks recur every day, and generally more than once. Patient has an attack every morning when she gets up and dresses herself. They are brought on by heat or by cold, and very frequently there is no apparent reason. They do not occur so frequently when her hands are kept warm in bed. Patient has similar attacks in the great toes of each foot. She feels quite well between the attacks, but when one is coming on she has a feeling of lassitude and disinclination to do what she is about.

Alimentary and circulatory system, normal. Sphygmographic tracings were taken during an attack and in the interval. The former showed, if anything, less arterial tension. Urine, normal.

Dr. Pitt remarked that the above notes illustrated fairly well the features of the disease. He defined it as "a *paroxysmal* attack of local gangrene or syncope, chiefly attacking the extremities." In some cases the fingers become dark, in others perfectly white. There were at least *three* degrees of the affection:—(1) seen in girls, whose fingers became white and numb on washing in cold water on cold mornings; (2) cases like our patient, who has intermittent attacks which pass off altogether; (3) cases in which the discoloured parts went on to form bullæ and become gangrenous. The gangrene is altogether superficial and scarcely ever leads to septicæmia. A few cases were mentioned in which the patches formed bullæ, which ended in punched-out granulating ulcers very difficult to heal.

The attacks are frequently preceded by lassitude, gaping, yawning, vomiting, or nausea; and some cases are accompanied by extremely severe pain. The attacks never come on at night.

Dr. Pitt then mentioned several cases—three occurring at Guy's during the last ten years—in which the attacks were accompanied by attacks of paroxysmal hæmoglobinuria, and said that between these diseases there was considerable association. During the attack the urine became dark-coloured, and was found to contain blood pigment, granular débris, slight amount of albumen, and crystals of oxalate of lime. The urine became normal soon after the attack passed off.

In some cases Reynaud described a tonic contraction of some of the joints as part of the

disease, and in others thickening around the tendons of the joints affected. Sometimes cyanosis of the face occurs with that of the extremities.

*Causation.*—The disease is probably due to an unduly irritable vaso-motor system, the first attack being brought on by cold, and the subsequent ones by slighter causes. During the Russo-Turkish war many cases of true Reynaud's disease arose from exposure and privation, without any extreme cold. *Syphilis* and *hysteria* have also been supposed to be causes, but there is no proved connection with them. In one of Reynaud's original cases the patient's eye-sight failed, and retinal pulsation and arterial spasm were found in the interval between the attacks; but during the attack these disappeared, and the sight became good.

*Diagnosis.*—The disease has to be diagnosed from cases of—

(1) *Irregular congestive mottling of skin*; here the patches are more or less persistent, not paroxysmal, and not accompanied with pain.

(2) *Peripheral Gangrene*, often associated with specific fever, peripheral neuritis (locomotor ataxia or nerve lesion), scleroderma, atheroma, feeble circulation, endarteritis obliterans, exposure to cold, or any local interference with circulation.

The main distinction in all cases is that the attacks of Reynaud's are *paroxysmal, recurrent,* and occur *without sufficient apparent cause.* A large proportion of cases occurs in young people, and is thus distinguished from senile gangrene.

*Prognosis.*—The disease tends to get worse, but does not end fatally.

*Treatment.*—Generally no improvement produced.

Many cases improved by exercise. A girl at Girton, who had constant severe pain in winter, was improved by walking, *not* by tennis.

Galvanic current to spine has been recommended.

*Locally.*—Washing the part in cold water is better than in warm water. Washing with aqua chloroformi is said to have relieved some cases. Others have been improved by massage, or by painting the part over with collodion. In one case, associated with severe urticaria pressure was beneficial; in another, quinine and iodide of potassium did some good.

## A CASE OF ACUTE RHEUMATISM, WITH ERYTHEMA, CHOREA, ENDOCARDITIS, PERICARDITIS AND PLEURISY.

Amy C——, aged 12. Admitted, May 25th, into Mary Ward, under Dr. Taylor, for Chorea.

*Previous History.*—Was under the care of Mr. Bryant, in Lydia, during the month of February, 1888, suffering from concussion. There is no mention in the surgical report of her mental condition, but the child's mother says that ever since leaving the Hospital she has been strange in mind, though before the accident she was bright and obedient.

*Present Illness.*—On the 10th of May she fell out of a swing on to her face, and was much frightened though unhurt. She moped about, and was more snappish in her temper, and wouldn't do anything she was told to do.

On the 11th she complained of not feeling well. Her face was pale; she had a headache, vomited, and wouldn't take her food well. Her legs up to her thighs were a little swollen and tender; her knees and ankles were swollen and tender, particularly the former, and she cried out when moved in bed. Her legs become covered with purple rings about the size of a farthing; these were most numerous over her thighs. They remained out about four days. Dr. Stirling, of Grange Road, said she was suffering from rheumatism, gave her some medicine, and had her legs covered with cotton-wool. At this time she was feverish, sweated, and the sweat had a sour smell.

On the 14th the choreic movements began.

On the 18th she complained of pain in the left side of the chest, and her sister applied some turps, which blistered her.

*Condition on Admission.*—Pale, rather vacant expression, grimaces with her face, and makes inarticulate sounds, cries when examined, flings her arms and legs about, and twists about in bed; rolls her eyes about. There is a cataract in the right eye, and the left pupil is small and irregular. Her breathing is irregular and jerky. Owing to this, it is difficult to make much out about her heart-sounds; no bruit heard. There is an excoriated patch on the left side of chest, due to blister and subsequent rubbing. The backs of her elbows are red from friction.

She was ordered Liq. Arsenicalis ♏ v., t.d.s., and owing to her restlessness and groaning she had a chloral and bromide draught during the night, which was repeated next night. Unfortunately her joints were not examined, the history of rheumatism not being obtained till the 28th. She didn't answer any questions, and seemed to be weak-minded.

On the 26th she seemed to have pain in the left side of the chest, and a pleuritic rub was heard. There was also a doubtful pericardial rub at base of heart. Præcordial dulness up to third rib.

On the 27th præcordial dulness up to second rib, half an inch beyond right border of sternum and half an inch beyond nipple line; shuffling rub distinctly heard at base of heart. Sounds at apex indistinct, apparently a triple rhythm.

On the 28th there was redness, tenderness and swelling of the right ankle, and some tenderness about the left knee. Evening temp. 100·4.

She was ordered Sodæ Salicylatis grs. vij. 4tis. horis. Of course it is uncertain whether she had rheumatism when admitted, or whether she had salicylate before coming in, and relapsed owing to its being left off on admission. No blister was applied for the pericarditis owing to her movements. During the next few days the choreic movements decreased, the pain in the joints disappeared, and the præcordial dulness diminished in extent. At the same time the pericardial rub became less distinct, and on the 1st June a blowing systolic murmur was heard at the apex.

Dr. Taylor remarked that he had frequently found in pericarditis that the rub, as illustrated by this case, is loudest when the præcordial dulness attains its largest extent, and becomes fainter as the dulness diminishes, contrary to the received opinion. The reason of its being best heard at the base being probably due to the amount of fluid being insufficient to separate the layers at the upper fold. The intimate connection of chorea with the mind was illustrated by the fact that the respiratory function, which is probably a later development in the animal creation, and still under the control of the will, is affected by the movements, whilst the heart and alimentary tract probably of earlier development are not directly controlled by the will and are unaffected by chorea.

H. P.

## A CASE OF OPIUM POISONING.

On Wednesday, May 30th, at 4.30 p.m., patient was carried into the Hospital, having, it was said, drunk some laudanum over an hour previously. According to the history given, patient had been drinking heavily before he took the poison, the quantity of which swallowed was not known. For the last hour he had been struggling as if mad, but when seen in the surgery there was no longer any trace of this excitement. He was drowsy, and fast relapsing into a state of insensibility, responding slightly to strong stimulation, but unable to speak intelligibly. The pupils were very contracted. He was sweating profusely and his face was flushed. Breathing was slow and laboured.

Pulse was fairly good, not rapid. Breath did not smell of either drink or opium, and there had been no vomiting. His stomach was thoroughly washed out, and the first washing smelt very strongly of opium. A twenty-fifth of a grain of atropine was injected subcutaneously. Patient continued all this while to get more and more insensible. A pint of coffee was then introduced into his stomach by means of the œsophageal tube, followed in about half-an-hour by another pint. No improvement followed, and so the faradic current was applied for some time. This had the effect of rousing him to a certain extent, but, when stopped, he speedily relapsed into his former condition. This was kept up for about an hour in the surgery, one or two attempts at walking patient about being made unsuccessfully. After about an hour and a half of this treatment he was taken down into the park, and attempts were made to walk him about; but this proved a matter of difficulty, as he had not recovered sufficient power to move his legs about. He speedily relapsed into his former condition. He was then placed on a bench and the battery again applied, which had the effect of rousing him a little. Alternately walking him about and applying the battery was kept up for an hour, the walking being of very little use, apparently, as the insensibility invariably became deeper when the application of the battery was suspended. At 7 o'clock his breathing became somewhat embarrassed, and another injection of atropine, one-fiftieth of a grain, was given. Shortly after this it was found that his pulse was becoming very weak, so an injection of brandy ℥ xv. was given. This appeared to improve him somewhat, and the treatment, by alternate walking and electrifying, was continued. During all this while there was no improvement in patient's condition.

At half-past seven an injection of strychnine, 1-25th, was given as patient's muscular power was at an extremely low ebb. After this he improved considerably, and was walked about with much less effort. He did not appear to become very much more sensible. At eight o'clock his bladder being found very full, was emptied. By 8.30 he was improving, and was able to give his name and address in a fairly intelligible manner when spoken to very loudly. He had by no means recovered consciousness, and the loss of power in his limbs was still very marked. He was then walked about for a minute or two by a couple of policemen who had been sent for. He then became suddenly worse and was brought back to the bench and the battery applied. After a few minutes it was noticed that his breathing suddenly ceased, and the pupils were widely dilated. His heart, however, continued to beat, and artificial respiration was immediately resorted to. Unfortunately, at this moment the battery got out of order. The heart beats soon became inaudible, but the artificial respiration was still kept up, and in about a quarter of an hour another injection of strychnine, gr. 1-25, was given. Artificial respiration was kept up for nearly an hour, when rigor mortis supervened, and all efforts were consequently given over.

At the post mortem there was great lividity of the skin, more particularly of the ears, neck, feet, and back. The lungs were engorged with fluid blood, and the heart was empty and contracted. Stomach was perfectly healthy. The membranes of the brain were congested.

A point of interest about this case is the sudden manner in which death took place after a period of apparent improvement, instead of, as is usually the case, the symptoms progressing steadily to a fatal termination. This is somewhat akin to those cases in which a fatal relapse has occurred after recovery from the first symptoms, a condition which has been called secondary asphyxia from opium. Death occurred in six hours after taking the poison, and rigor mortis supervened within an hour of

death, this rapid onset being probably due to the exhibition of strychnine.

With regard to the treatment, the best results seemed to follow the use of the battery, which probably prolonged his life for some time, for on its cessation, the patient invariably relapsed, all other forms of stimulation being next to useless. It is questionable whether the walking about, which is recommended in the text-books, was not absolutely injurious, needlessly reducing the patient's strength, as was evidenced by the failure of his pulse on several occasions.

As regards drugs, the atropine appeared to have no effect whatever, probably because it was not sufficiently pushed. The strychnine appeared to benefit the patient considerably, after his muscular powers had been exhausted by walking about.

The post-mortem changes require no further remark, differing in no particular from those usually found in these cases.

## ON INOCULATION.

By the Medical Superintendent of the Hospital Ships.

When people were inoculated with small-pox, they were also, about the time of the inoculation, exposed to small-pox infection. Doubtless, nowadays, it would be practical to inoculate without infecting. I mean, we could apply small-pox-producing spores to a limited injured surface, and prevent any of them falling on the rest of the body. In those days no precautions were taken during inoculation to avoid infection. The person operated on was permitted to associate with the person supplying the matter. Even the matter itself, when applied to the arm, was left exposed, so that it could fall off, and be blown about into other parts. A patch of confluent pocks usually resulted at the injured site, elsewhere an ordinary small-pox eruption. As, however, it was not necessary for the person operated on to remain long near the small-pox patient, in a spore-laden atmosphere, the general eruption was frequently discrete; but sometimes it was confluent.

Accidental inoculation is occasionally admitted; the result of a scratch whilst attending relatives ill at home with small-pox. It is much more common to find a pustule or two, or a confluent patch of pustules, at the site of a surface injury (in positions where inoculation was out of the question), on patients whose general eruption is papular or vesicular. A similar result may be produced with vaccine lymph, if, at the time of vaccination, some is smeared in the neighbourhood of the injured surface. Pocks sometimes appear on the unbroken infected skin; often those on the injured inoculated part are pustules. I have frequently seen an annular vesicle surrounding a vaccination scab. The scab being the remains of the pocks on the wounded surface, and corresponding with the local pock of inoculation, the ring of pocks surrounding it being on uninjured skin, and corresponding with the general eruption of inoculation.

The course of inoculated small-pox is exactly that of concurrent small and cow-pox. In those vaccinated at the time of infection, the inoculated cow-pox eruption is maturing when the infected small-pox eruption is appearing. As in inoculated small-pox, the number of pocks of the infected eruption is determined by the circumstances of exposure. The two eruptions in the concurrent diseases progress as the two eruptions do in inoculated small-pox under similar circumstances. In both these affections (inoculated small-pox and concurrent small-pox, and cow-pox) the general eruption may be as abundant as in the most severe confluent small-pox, though probably the small-pox pocks would be modified in the latter.

Vaccine inoculations, at intervals of a few days, may result in immodified pocks running independent courses. As marked a difference in age may be seen between two patches on the same arm—the result of vaccinations at intervals of days—as between the successive crops of pocks on a part in confluent small-pox, or even as between the local and general eruptions of inoculated small-pox. The interval between the successful vaccinations may be as much as five days; doubtless, it may be a great deal longer. Vaccination, after small-pox infection, may result in a pock, if done at any time preceding vesiculation. In two cases, done during the initial illness and papular stage respectively, the eruptions at the sites of inoculation were apparently of the same age as the small pocks on the arm. In vaccinations after small-pox vesiculation I have not noticed any local effect.

When spores are applied to the skin, I presume they proliferate and invade the surface. By removing the cuticle in inoculation, we favour the irritant by doing the work required for it to meet the irritable.

At the Royal College of Surgeons, Professor Thomas Bryant, F.R.C.S., will give two lectures "On the causes, effects and treatment of tension as met with in surgical practice," and one lecture on "Surgical interference in cranial injuries," on Monday, Wednesday and Friday, June 11th, 13th and 15th.

Dr. Stevenson will this year hold his classes of practical toxicology during the summer session instead of in October. They will commence next Thursday, at 11 a.m.

## MALIGNANT DISEASE OF THE SPINE.

It is not my intention to write a sermon, yet I intend so far to borrow from the customs of the Church, as to commence with a text. "Malignant disease of the spine is scarcely less important than caries as a cause of paraplegia."—FAGGE, vol. i., p. 412. At first this statement may somewhat startle us, especially the younger members of the profession, and I daresay many persons pass over this sentence in Fagge, thinking they have seen a great many cases of caries, but few, if any, of cancer of the spine; and from the amount of literature on the subject, one would think that authors even have a tendency to pass the subject with an almost microscopical recognition.

That this is not a very frequent disease is shown by the Reports of Guy's Hospital, the average being two or three cases in the year.

The age at which it occurs is various. Dr. Fagge says of his fourteen cases the patients were of all ages from sixteen to sixty-eight. Of fifteen cases which I collected from the Clinical and Pathological Reports of Guy's Hospital, and on which notes these few remarks are based, there was no case under thirty, the exact figures being:—

Between 30 and 40, 2 cases.
,, 40 and 50, 6 ,,
,, 50 and 60, 3 ,,
,, 60 and 70, 4 ,,

Sex. Of the fifteen cases, eight were in men, and seven in women. In Dr. Fagge's cases, the proportion was ten males to four females. This is certainly not what one would expect, considering how frequently it is secondary to malignant disease of the uterus, ovaries or breast.

Origin. It is a point of dispute as to whether these cases are ever primarily spinal. Of the cases before me there were no other bones involved. The following case, which I quote from the P.M. Records, would appear to have been most probably primary spinal. "Nothing seen or felt before laminæ were removed; then it was found that there was a large quantity of growth within the spinal canal in the dorsal region; it invaded the posterior surface of the bodies and compressed the cord but did not penetrate the membranes. Cord firm and healthy. Growth in both lungs. Mediastinal glands slightly affected. All the other viscera healthy. Microscopically, the growth consisted of a fibrous stroma with an alveolar arrangement, and large numbers of polymorphous cells having large oval and round nuclei." In other cases it is found secondary to prostate, bladder, uterus, breast, &c., &c., sometimes involving the spine by direct extension.

Family history seems to be of little value in these cases. Out of the fifteen cases, only in one is there a definite history of malignant disease.

The kind of patient. The usual history is that they have always been strong and healthy, a very frequent history, I believe, in nearly all forms of cancer.

The diagnosis is difficult but very important; difficult, because the paraplegia comes on very insidiously, and it is often almost impossible to say whether a patient cannot, or will not move his legs; and also as regards sensation, the patient's statements are frequently most misguiding; important, because often looked upon as chronic rheumatism, hysteria or malingering. The main points to help us would be persistent pain, yielding for a time to anodynes, but always too severe to be relieved for any length of time by them; feebleness of legs, impaired sensation; loss of flesh, fœtid urine, and later, evidence of visceral disease; enlarged glands and swellings on bones. It is not any one symptom that we look for, but the fact that they are all there without any apparent cause.

The prognosis must be guarded, but when the symptoms are sufficiently marked to leave no doubt as to the diagnosis, we need not fear to say the patient will most probably not live six months. From the first complaint of any illness, six out of fifteen cases terminated in three months, two in five, one in six, three in eight, two in twelve, and one in fifteen months; but each case must be judged on its own merits—the facts that the patient gets little or no sleep, takes his food badly, and has a good deal of lung trouble, would point to the end being near.

In length of course, and mode of death, this disease differs very greatly from spinal caries, death being brought about in cancer of the spine by secondary deposits in lung, heart, liver, &c., whereas in caries death generally results from lardaceous disease, cystitis, or even bed sore.

There are two situations in which growths in connection with the spine occur, viz.: 1, Externally on the anterior surfaces of the bodies of the vertebræ; and 2, within the spinal canal, invading the posterior surfaces of the bodies. The two kinds are perfectly distinct, and never seem to occur together; the external variety is more frequent. The dorsal and lumbar regions are affected much more than the cervical. The cord itself never seems to get directly pressed upon, as the growth is always outside the membranes; and the nerves, though they pass directly through the growths in some cases, are never infiltrated by growth, and to the naked eye do not seem to suffer from the pressure. This probably accounts for the pressure symptoms coming on so insidiously, and being but slightly marked in some cases.

In the notes before me, I find that there are at least three different kinds of growth which attack the vertebræ. 1, Carcinoma, which infiltrates and softens the bones; 2, Growths, which contain bone in the primary and secondary growths—osteo-sarcoma; and 3, Periosteal and medullary sarcomata. They are given in the order of frequency, the first being by far the most common.

As regards treatment, nothing need be said specially; it must depend upon, and be varied by, the symptoms. The main points would be to relieve pain, support strength, regulate the action of the bowels, and try to make the short spell of life left as bearable as possible.

R. CAPES.

# Passim.

WE understand that a Committee Meeting will be held on Monday next, in the Club, at which the Captain and Hon. Sec. of the Cricket Club will tender their resignations. Matters must have come to a rather serious pass when an event, such as this, occurs. It indicates a lamentable lack of sportsmanlike feeling amongst Guy's men, and bodes ill for the future. The Captain and Hon. Sec. have good grounds for their complaints. They say, that it is with the greatest possible difficulty that a team can be raised for any match, the men continually scratching. They point to the fact, that for this reason they have already had to withdraw from their engagements with Richmond and Chiswick, and that from the present aspect of affairs they will probably have to withdraw from many subsequent ones. If this difficulty exists their resignation is scarcely to be wondered at. But surely such a thing as this will not be allowed to take place. Why, we shall hear next that the rest of our list of fixtures have been cancelled, and that we have scratched *v.* Thomas' for the Cup.

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A WORD of praise is due to Mr. Colclough for his brilliant innings of 124 in the Cup Tie. It was a splendid exhibition of batting, and during the 2 hours and 40 minutes he was batting he made no mistake. His innings include one 4 and thirty 3's. Let others follow his good example in future ties, and we shall see Guy's the first possessors of the new Cup.

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ON Thursday, May 31st, in the Anatomical Theatre, a Testimonial, given by the past and present Students of Guy's, was presented to Mr. Bryant, on the occasion of his retiring from the post of Senior Surgeon to the Hospital. There was a crowded and sympathetic meeting, and the proceedings were graced by the presence of the Matron and a number of the Sisters in the gallery. The Testimonial took the form of a handsome silver punch bowl, the rim of which bore in *bas-relief* a representation of the Elgin Marbles. This was accompanied by a handsome album containing an illuminated address and the names of the subscribers, together with photographs of various parts of the Hospital, many of which were taken expressly for this occasion.

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MR. DREW, in presenting the Testimonial, expressed in a few well-chosen words the sorrow of himself, and those he represented at the loss of Mr. Bryant's active services, which the inexorable law of time had inflicted on them. He wished Mr. Bryant an ever increasing circle of patients and friends, and expressed the hope that he would from time to time be able to give the Students the benefit of his large and varied experience.

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MR. BRYANT, in acknowledging the presentation, thanked Mr. Drew and through him the Students of Guy's Hospital for the kind feeling which had prompted them on this occasion. In severing his active connection with the Hospital he did not cease to be a Student. He had been one for forty years and he hoped to remain one all his life. One of the chief reasons of his regret for leaving was the fact that he could no longer mix with young men, contact with their young minds being to him a constant source of pleasure and profit. He hoped they would excuse a few words of advice from him, and urged upon his audience the importance of every man exerting his own individuality, as he was sure that future success depended to a very large extent upon one's personal efforts. In thanking the Students again he hoped that they would all be successful in the practice of their profession.

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THREE Guy's men last week passed the Final Fellowship Examination of the Royal College of Surgeons. They were—Mr. Hind, Mr. C. Metzgar, and Mr. A. S. Taylor. We congratulate them heartily.

THERE has been an untimely change in the Residents. Mr. Drew, having been appointed House-Surgeon to the Croydon Infirmary, resigned his House-Surgeoncy here a month before its termination. A large number of past and present Residents and Senior men met in "The Rooms," on Thursday evening, May 31st, to bid him good-bye, to express their sorrow at his departure, and to congratulate him on his new appointment. Dr. Halstead has been appointed to the vacant post. No more popular selection could have been made.

THE same evening Mr. W. Fisher's appointment as Senior Resident Obstetric Assistant expired. He was succeeded by his Junior, Mr. G. Black, whose place was taken by Mr. J. Lloyd Roberts.

PERHAPS it is not so generally known as it might be, that Dr. Frederick Taylor was lately appointed Examiner in Materia Medica and Pharmacy at the University of London.

ON Saturday, May 26th, a case of "Spontaneous Evolution" occurred in Guy's Charity. This is the seventh case out of about 2,400 births. The child was a twin. No doubt an account of it will be given in the GAZETTE.

DR. PERRY, who has been Sub-Dean for the past year, has, we understand, been appointed Dean. Dr. Taylor retires after having held the appointment for about 14 years.

J. W. WASHBOURN, M.D., B.S., F.R.C.S., has been appointed Demonstrator in the Dissecting Room.

THE new Resident Obstetric Assistants are—

J. Lloyd Roberts (June); W. N. Risdon (July); A. E. Poolman (August).

Surgeons' Dressers—

| | |
|---|---|
| R. G. Hicks, J. P. Pendlebury. | (Mr. Durham.) |
| J. E. F. Hoskins, A. E. Palmer. | (Mr. Howse.) |
| R. E. Williams. | (Mr. Davies-Colley.) |
| J. D. Cruickshank. | (Mr. Lucas.) |

Clinicals—

H. E. Vincent, A. T. Brown, A. Parkin, C. Price-Jones, P. Paget, H. G. W. Bowen.

WE would remind our readers of the following—

June 10. Application to be made at Medical Office for Schedules for Second Conjoint Exam. not later than this date.
" 12. Exam. for Treasurer's Gold Medals. Last day for applying for H.P. and H.S.
" 16. Last day for sending in names to Lond. Univ. for Prel. Sci. Exam.
" 18. Schedules for Final Conjoint to be sent in not later than this date.
" 19. Prize Competition for Fourth Year's Students.
" 21. Prize Competition for Third Year's Students.
" 23. Last day for sending in Schedules for Intermed. M.B. Lond.
" 25. Examination for Mackenzie-Bacon Prize.

## NOTES ON PATHOLOGY.

By DR. R. E. CARRINGTON.

*(Continued.)*

### LIVER.

#### CIRRHOSIS OF LIVER.

*Causation.*

Alcohol.

Syphilis (acquired, congenital); characters are widely different, as will be seen later on.

Malarial poisoning.

Obstruction to bile duct by gall stones or cancer.

Thrombosis of portal vein in rare cases.

In hydatids and dried-up abscesses, a partial cirrhosis may be met with.

The following forms of cirrhosis of the liver have been met with:—

1. The large smooth cirrhotic liver; hypertrophic cirrhosis, or biliary cirrhosis.

2. The small hobnailed liver; atrophic cirrhosis, or portal cirrhosis.

3. Cirrhosis of acquired syphilis.

4. Congenital syphilis, very rare.

5. The cirrhotic liver of chronic ague, very rarely met with in England (probably never). This form is Rokitansky's red atrophy of liver.

The organ is small and contracted, dense and hard, and of purple grey colour. Here the chief change microscopically is destruction of the terminal branches of the portal vein within the liver, so that they end in club-shaped extremities.

*Cirrhosis of acquired syphilis.*—The main feature of this form of cirrhosis is that it is irregularly scarred by varying degrees of fibrous tissue; or gummata are met

with generally on the surface, but sometimes in the substance, and these are surrounded by capsules of fibrous tissue; or as a later process bands of fibrous tissue start from them. The extreme result is a liver cut up in all directions by cicatricial tissue forming a number of abnormal lobes.

*Congenital syphilitic* liver is rare. Liver is uniformly enlarged, dense, hard, and whitish grey in colour.

*N.B.*—Congenital syphilis has an important bearing upon the cirrhotic livers met with in young children which are either large and smooth, or small and hobnailed.

In a few extremely rare cases, portal thrombosis has apparently undergone cure, and from the portal vein little nodules of fibrous tissue have started.

*N.B.*—Practically, the first three forms of cirrhosis are the important ones.

Heart diseases and other causes of chronic pulmonary obstruction lead, no doubt, to the nutmeg liver, which will be described presently. But whether they ever result in such an amount of fibrous growth as may be termed cirrhosis is extremely doubtful. The probability is that the heart disease kills the patient long before any cirrhotic changes to any degree can take place.

1. *The large smooth* cirrhotic liver is much increased in size. (Some of the largest livers are cirrhotic.) Surface is smooth. *Section* pale yellow in colour. Lobulations ill marked, extremely dense and hard.

2. The small cirrhotic liver is irregular on the surface, but somewhat minutely so. It is studded all over and uniformly with small hemispherical projections. Hence the name "hobnailed."

3. The liver of acquired syphilis has been described.

4. In children we either meet with the small hobnailed or the large smooth cirrhotic.

*Microscopical appearances.*

There are two changes of which we have to take note:—

1. The growth in the liver of granulations culminating in fibrous tissue.

2. The appearance of double rows of cells in the fibrous tissue. The nature of these is variously interpreted, but is described by Charcot and others as being new biliary ducts.

As regards the first point, *i.e.*, the fibrous tissue, cirrhosis is said to be—

(*a*) Multilobular = irregular groups of lobules are surrounded by fibrous tissue.

(*b*) Monolobular = each lobule is surrounded by fibrous tissue.

(*c*) Intercellular = new-formed elements are found between the cells.

*Multilobular* cirrhosis is the small hobnailed liver, *i.e.*, groups of lobules are surrounded with connective tissue.

*Monolobular* cirrhosis is the large smooth cirrhotic liver. The reservation stated below must, however, be remembered.

*Intercellular* is the liver of congenital syphilis, and probably some cases of adult syphilis; but there is no doubt that the large smooth cirrhotic liver frequently, if not uniformly, exhibits intercellular changes.

*(To be continued.)*

## REST AND PAIN.

*(Continued.)*

Marked and peculiarly situated pain accompanies diseases of the vertebræ. The trouble usually begins in the intervertebral disc, or between the body and its disc—cp. the fact that aneurysm usually commences at the point of junction of the healthy and atheromatous portions of the vessel.

It usually involves the whole of the disc, and so affects equally the nerves leaving the cord at the level of the disease, and thus we get symmetrical superficial pain in the course of all the nerves leaving at this level.

Unsymmetrical pain suggests that only one side of the disc is diseased. It is also the characteristic symptom in the case of trouble between the atlas and the axis below and occiput above, because as a rule only one of the points between these bones is diseased. When the lower dorsal and lumbar spine is affected, the pain is often likened to a narrow very light band round the body. A woman lying in Charity illustrated some of these points: She had a large retropharyngeal tumour, and the following symptoms of pain, burning and continuous pain, from the angle of left jaw to the spine of the vertebræ behind, also extending down over collar bone (supra-clavicular nerves), and up along the course of the occipital nerves.

Her chin could touch the *sternum* without pain, but not the thyroid body; and flexion backwards of the head was acutely painful unless the occipital region was supported by a hand. These symptoms pointed to disease high up in the cervical spine, and connected with the atlas and axis, influencing the origins of the supra-clavicular and occipital nerves; and it afterwards was shown that a sarcomatous growth had originated in the odontoid process, and had spread downwards and to the left, implicating the nerves mentioned.

The pain of aneurysm has often been confounded with rheumatism. When the aneurysm occurs near a joint, the latter is very often treated for weeks under the idea that the lesion is inside the joint. Obscure pain in the knee should recall the possibility of popliteal aneurysm. The pain differs from that of rheumatism by its double character, being lancinating and intermittent as well as continuous and aching and burning. Pain in the neighbourhood of large vessels and about the posterior and lateral regions of the head, or in the neck and arm, should always suggest aneurysm. Pain in the occipital region has been noticed often enough connected

with two conditions to make it a useful means of diagnosing these conditions :—

(1) With disease of the vertebral artery and of the cerebral vessels ;

(2) With paralysis of the tongue—due to disease of the vertebral dependent on disease of the left ventricle.

Dr. Bright describes many cases coming under the first division, and he explains it as follows :—"If we turn our attention to the position of the suboccipital and two superior cervical nerves with regard to the vertebral, we shall see that the suboccipital lies side by side with the artery as the latter makes its turn in the groove in the atlas ; and that the second cervical on issuing from the cord, passes close to the artery, while the anterior division of the first passes close across the artery *en route* to the cervical plexus, and therefore *á priori*, disease of the vertebral would be most likely to cause disturbance to the nerves in the region."

Dr. Ramskill adopts Dr. Bright's reasoning to explain how the loss of speech may be caused by diseased vertebral dependent on a diseased heart, pressing upon the hypo-glossal nerve.

In dealing with the diseases of the urinary system, pain is most useful as a means for diagnosis.

In *prostatitis* there is pain at the end of micturition—as the bladder contracts on the tender prostate, not so severe as that of stone, but like it in character.

In *cystitis* the bladder is inflamed, and therefore more anxious to be rid of its contents the fuller it gets, and hence the pain is before micturition or at the beginning of the act. It is situated in the chronic and sub-acute stages in the suprapubic region ; while in the acute stage it may be felt in the perineum.

In simple *stricture* the pain is at the seat of stricture.

In *hypertrophy of the prostate* we often get pain as in cystitis, and this is because we invariably get some chronic cystitis in these cases. The cause is not far to seek—the bladder can only relieve itself slowly and with straining, because of the impediment caused by the prostate.

The pain of *stone* is characteristic :—*firstly*, at the end of the penis, and generally at the base of the glans ; *secondly*, very acute pain after passing water. This is caused by the contact of the rough surface of the calculus with the extremely sensitive trigone of the bladder. When the ureters have discharged enough urine to expand the walls of the viscus, much of the pain is relieved. Naturally enough, movement increases the pain. If in doubt as to the presence of a stone, "put the man," says Sir Henry Thompson, "into an omnibus and rattle him over the London streets for a couple of hours ; if no particular pain be produced, there is no stone, for no bladder would stand such rough treatment without a sign."

In prostatitis the neck of the bladder is usually involved, and hence we may get pain at the end of the penis. This is one reason why chronic inflammation of the prostate is sometimes mistaken for stone.

*(To be continued.)*

## PHILOSOPHIA MEDICI.

### REFLECTIONS AND NOTES

By WALTER MOXON.

1857 to 1869.

XI.

Is it the light or the cloud that casts the shadow? Some blame the light, others the cloud.

Truth so eludes you, that you cannot hunt it straightforward, in lines, across country. You have to catch it as though in traps ; not by Logic, but by clever devices. We often reach a conviction when we cannot a proof.

He has only a Jew's harp ; how can you expect him to persevere in the attempt to play dignified and stately melodies. He feels that jigs and roundabouts suit his instrument best, and if you don't like what he is best suited for, you are not bound to listen. Remember, too, that others will say the same of you.

The beauty of that silver mountain cloud, with its soft recesses of shadow and bold heads of unspeakable whiteness, as if they had just come from the face of God, it quells you into devotion and love. Yet a few moments, and the same cloud is a canopy of darkness and driving rain. Such are all pleasant things. To be safe, see their real nature.

To be truly human we must achieve two things—to acquire, and to be superior to our own acquisitions.

Hinton's "Mystery of Pain" is the most sublime, and brilliant, and beautiful thought I have yet met with. It is a wonder of constructive effort ; but yet there rests a sense of dissatisfaction with it which I want to analyse. A larger life absorbs pain, and therein gets a happiness which is above what is otherwise conceived. To feel pain as pain is to fail to feel the effort that ought to annul it. It is action of will that renders senseless to pain. Now, will is either a balance of motives, or else a spontaneity—or both.

To be both mistaken and defeated deprives you of every support from "friends." If a man is successful and mistaken, he will have plenty to follow his success, in spite of his want of accuracy in judgment. But how can one sympathise with a man who is both in error and in disgrace. He may hold up his head as bravely as possible, because he can fall back for support on the hard principle, that what can't be cured must be endured. But those who might, for pity's sake or love's sake, join him, what principle can they fall back on?

The best men are those who, being naturally analytics, take to methods of synthesis by a liking of their results ; or else men who, being naturally synthetics, have a liking of analytics for their results.

## THE INC'RECT CARD.

Some time ago I was passing through Holborn when my attention was attracted by a row. On mingling with the crowd I found a policeman trying to remove a beggar who, although his eyes seemed all right, bore on his chest a card announcing that he had been totally blinded by quicklime, and was slowly recovering his sight. The crowd, of course, sided with the beggar, who indignantly denied the policeman's statement that he was a well-known impostor; and, to prove the contrary, swore he was attending Guy's 'Orspittle, and produced a small cushion stuffed with hay and covered with American leather, on which was sewn with string one of our Out-patient Cards, bearing the legend "No. 476, under the care of Dr. Horrocks." The policeman was rather staggered by this bluff, but a few words of explanation soon changed his opinion; and, when last I saw him, Dr. Horrock's patient was rapidly being helped on to the nearest police station.

# Sport.

## CRICKET.

### CUP MATCH.—GUY'S v. MIDDLESEX.

The above match was played at Castle Hill, on May 24th. Middlesex winning the toss, went in first, but fared rather badly owing to our bowlers being rather on the spot. Levick made the highest score for them, namely, 16, and they were all out at 12·50 for the small total of 68. We began our batting at 1 o'clock with Colclough and Shenton, and at lunch time we had made 35 for no wickets, Shenton not out 25. After lunch, Shenton got out after adding 7, but Colclough continued to bat in fine style, and he and Roberts put on 150 before they were separated. Roberts played splendidly for his 44, while Colclough's 124 was a brilliant display of batting, and is the highest individual innings yet made in a Cup match. Jackson and Smith also played well, punishing the worn-out bowling very effectually. It may be mentioned in conclusion that 363 for 7 wickets is the highest total yet reached in an Inter-Hospital contest.

MIDDLESEX.

| | |
|---|---|
| G. S. S. Marshall, b W. G. Mitchell | 5 |
| W. E. Hind, b W. G. Mitchell | 10 |
| S. Smith, c E. J. D. Mitchell, b W. D. Mitchell | 8 |
| H. Savory, run out | 0 |
| C. H. Cayley, b E. J. D. Mitchell | 0 |
| T. M. F. Nellen, b Yorath | 14 |
| G. D. Levick, c Roberts, b Rygate | 16 |
| H. Daniell, b Yorath | 0 |
| R. S. Black, run out | 3 |
| D. L. Freeland, not out | 5 |
| E. Addison, c Colclough, b Rygate | 0 |
| Extras | 8 |
| Total | 68 |

GUY'S HOSPITAL.

| | |
|---|---|
| F. Colclough, b Marshall | 124 |
| J. C. Shenton, b Hind | 32 |
| J. H. Roberts, c Savory, b Hind | 44 |
| E. J. D. Mitchell, b Hind | 20 |
| W. G. Mitchell, b Marshall | 11 |
| T. H. B. Yorath, c Levick, b Hind | 11 |
| H. A. Smith, not out | 28 |
| G. Featherstone, b Marshall | 9 |
| T. S. Jackson, not out | 29 |
| J. H. Busteed, did not bat | 0 |
| H. B. Rygate, did not bat | 0 |
| Extras | 55 |
| Total | 363 |

## GUY'S HOSPITAL II. v. KINGSTON GRAMMAR SCHOOL.

Played at Kingston, on May 26th, and resulted in our favour by one run. Jewell and Steele, especially the latter, were in capital form, and Jackson (6 wickets for 13 runs) was most useful. Score:—

GUY'S HOSPITAL.

| | 1st Innings. | | 2nd Innings. |
|---|---|---|---|
| W. K. Steele, run out | 17 | b Marsh | 45 |
| W. H. Jewell, b Docker | 3 | c & b Marsh | 20 |
| G. W. Featherstone, l b w Cooke | 5 | b Durant | 0 |
| W. E. Sturges-Jones, b Cooke | 4 | b Cooke | 5 |
| E. S. Tuck, run out | 0 | c & b Docker | 1 |
| V. H. Ellis, b Docker | 3 | run out | 2 |
| H. A. Hinds, b Docker | 0 | absent | 0 |
| B. F. Jackson, b Docker | 6 | c Marsh, b Durrant | 4 |
| H. W. Webber, c Atwood, b Docker | 5 | c Marsh, b Cooke | 6 |
| R. Henderson, run out | 0 | not out | 0 |
| Badcock (subs.), not out | 0 | b Cooke | 0 |
| Extras | 8 | Extras | 13 |
| Total | 51 | Total | 96 |

KINGSTON GRAMMAR SCHOOL.

| | |
|---|---|
| Mr. Rowe, b Jackson | 3 |
| Atwood, b Jackson | 0 |
| Mr. Docker, b Jackson | 16 |
| Mr. Cooke, b Tuck | 3 |
| Marsh, c Steele, b Tuck | 4 |
| Durrant, run out | 3 |
| Chilvers, b Jackson | 4 |
| Young, b Jackson | 1 |
| Wright, not out | 9 |
| Barrett, b Jackson | 0 |
| Everingham, b Henderson | 3 |
| Extras | 4 |
| Total | 50 |

## REIGATE HILL v. GUY'S HOSPITAL.

Played at Reigate, on Saturday, May 26th, and resulted in a win for Reigate by 144 runs. It was with the greatest difficulty, as usual, that we could raise a team for the match, and consequently our defeat was by no means surprising. Reigate went in first on a splendid wicket, and, thanks to the hard hitting of the Rev. E. Cotton, were not disposed of till they had put together the fine total of 245. The feature of the day's play was the Rev. E. Cotton's hard-hit innings of 116. Though by no means a faultless one, and decidedly a lucky one, he hit splendidly at times, his 116 including one six and twenty fours. Collier also played a good innings. On going in to bat, we began very badly, losing Colclough, Shenton and W. Mitchell for 29 runs, and we were all out for 89, Russell being the only one who seemed to be able to make a stand, he playing a very good innings of 25 not out. Being 144 runs behind, we had to follow on, and, thanks to Colclough's steady play, only lost two wickets for 70 at the call of time. Our fielding was slack in the extreme, and it was mainly due to this fact that our opponents were able to run up so large a total against us. G. W. Mitchell, who turned up an hour late, bowled very well indeed, taking six wickets for 42 runs.

Reigate Hill.

| | |
|---|---|
| Rev. E. G. Cotton, b G. W. Mitchell | 116 |
| J. Kenrick, b W. G. Mitchell | 5 |
| Rev. W. Churchill, b Yorath | 2 |
| S. H. G. Welsh, c Shenton, b W. G. Mitchell | 16 |
| J. T. Collier, c Russell, b G. W. Mitchell | 35 |
| F. Abrahams, b G. W. Mitchell | 0 |
| E. R. Hardman, b G. W. Mitchell | 20 |
| W. S. Jackson, not out | 12 |
| H. S. Collier, c Colclough, b Yorath | 9 |
| E. Benfield, c Wilks, b G. W. Mitchell | 0 |
| J. C. R. Pringle, b G. W. Mitchell | 0 |
| Extras | 29 |
| Total | 245 |

Guy's Hospital.

| 1st Innings. | | 2nd Innings. | |
|---|---|---|---|
| F. Colclough, b Kenrick | 11 | not out | 32 |
| J. C. Shenton, b Hardman | 11 | b Benfield | 7 |
| W. G. Mitchell, b Kenrick | 8 | b Kenrick | 18 |
| T. H. B. Yorath, run out | 4 | not out | 8 |
| T. S. Jackson, c Kenrick, b Hardman | 10 | | |
| J. H. Busteed, c & b Welsh | 8 | | |
| F. M. Russell, not out | 25 | | |
| H. E. Wilks, c Churchill, b Welsh | 0 | | |
| E. L. Budge, 1 b w, b Welsh | 2 | | |
| W. E. S. Cobb, b Welsh | 0 | | |
| G. W. Mitchell, b Welsh | 0 | | |
| Extras | 10 | Extras | 4 |
| Total | 89 | Total (2 wkts.) | 70 |

## BRENTWOOD v. GUY'S HOSPITAL.

Played at Brentwood on Saturday last, and resulted after a most exciting finish in a victory for us by 2 runs. We went in first, and put together 120, E. J. D. Mitchell and W. G. Mitchell being the chief contributors. Brentwood then went in, and lost 9 wickets for 115, only wanting five runs to win when the last man came in. Three of these were soon made; then Baker cut a ball very hard to Jackson at point, the latter missing the catch, but picking up the ball very smartly returned it well to Shenton, who ran the man out. Mitchell bowled very well for us. On going in a second time we made 79 for 7 wickets, out of which W. G. Mitchell made 34 and Colclough (not out) 16. E. J. D. Mitchell hurt his knee very badly, and was obliged to retire. Scores:—

Guy's.

| 1st Innings. | | 2nd Innings. | |
|---|---|---|---|
| F. Colclough, b Heatley | 5 | not out | 16 |
| F. C. Shenton, c Ward, b Read | 11 | c Heatley, b Ward | 0 |
| F. M. Russell, b Ward | 15 | c Read, b Ward | 11 |
| E. J. D. Mitchell, b Heatley | 21 | retired hurt | 2 |
| W. G. Mitchell, b Claughton | 23 | c Read, b Claughton | 34 |
| T. B. Yorath, b Heatley | 0 | st Read, b Ward | 0 |
| G. W. Bowen, b Claughton | 8 | b Claughton | 5 |
| C. E. Lewis | 0 | | |
| A. Warren, c Merryweather, b Read | 4 | | |
| T. S. Jackson, not out | 7 | b Ward | 1 |
| E. Hunt, b Claugton, b Ward | 7 | | |
| Extras | 19 | Extras | 10 |
| Total | 120 | Total | 76 |

Brentwood.

| | |
|---|---|
| H. C. Escott, b E. J. D. Mitchell | 3 |
| J. J. Read, c Warren, b E. J. D. Mitchell | 23 |
| A. E. Heatley, b E. J. D. Mitchell | 3 |
| H. F. Ward, c Yorath, b E. J. D. Mitchell | 6 |
| C. J. Merryweather, run out | 5 |
| Captain Claughton, c Shenton, b Yoarth | 24 |
| A. C. Penny, b Bowen | 19 |
| W. Pearce, b Colclough | 20 |
| F. W. Wood, 1 b w, b Yorath | 1 |
| C. A. Wood, not out | 0 |
| G. Baker, run out | 10 |
| Extras | 10 |
| Total | 118 |

## GUY'S HOSPITAL FOOTBALL CLUB.

At a Committee Meeting, held May 16th, the Honour Caps for good playing during the past season were awarded to A. D. Fripp, J. H. Bryant, and H. M. Jordan.

## GUY'S HOSPITAL ATHLETIC SPORTS.

The sports will be held at Stamford Bridge Grounds, Fulham, on Monday, June 11, 1888, at 2.15 p.m.

**Guy's Hospital Gazette,**
*JUNE 23, 1888.*

# NOTES OF A CLINICAL LECTURE ON ANÆMIA.

By Dr. HALE WHITE.

Dr. Hale White took as the basis of his lecture the following case of leucocythæmia:

J. B——, aged 30, was admitted on April 23rd for enlarged liver and spleen. The family history was very good, and there was no account of ague. The patient was born in Essex, near Chelmsford, but left there when fifteen years old, and has since lived in London. He has never had ague. He has all his life been exposed to the weather, especially since he came to London, his occupation being that of a carman. For the past five months the patient has suffered from pains in the head, dimness of vision, buzzing in the right ear, weakness, languor, and shortness of breath. His abdomen has been steadily increasing in size, and latterly has been tender to pressure over both liver and spleen. The symptoms have been rapidly getting worse during the last month. He weighs 21 lb. less than he did nine months ago.

*State on admission.*—The patient does not look anæmic. Skin bronzed over abdomen, neck, and face. The slightest exertion causes dyspnœa. Headache and vertigo severe. Respiratory system normal. No pleural effusion; no ascites. The liver is very large, and the right lobe extends down to the level of the umbilicus; the left lobe is continuous with the spleen, the latter extending as low as midway between the umbilicus and the pubes, and curving forward to the middle line, the notch being opposite the umbilicus. Liver and spleen tender on pressure. Pulse of low tension, rapid, not running. Blood pale; contains only 40 per cent. of the normal amount of hæmoglobin, one-third of the normal number of red corpuscles, and an average of twelve white corpuscles to every sixteen red. Double optic neuritis is present, but no hæmorrhage can be seen. The lymph glands in the groins and axillæ are slightly enlarged and hard. Urine normal, except for a large deposit of oxalates.

On mercury and iodide of potash and abundant food the patient's condition improved; the red corpuscles increased, and the white diminished. On April 5th he felt stronger, and was able to walk about the ward. The optic neuritis steadily grew more marked, and a small retinal hæmorrhage was seen in the left eye. On the 6th there was some pain in the back, with slight cough, the sputum being streaked with blood, and there was slight epistaxis. On the 8th he was unable to get up, and lost his appetite. In the afternoon he complained of severe pain in the left axilla, and on examination a large hæmatoma was found to occupy the axilla, it being about four inches in antero-posterior measurement, and six inches from above downwards. On inserting a needle pure blood came out. This swelling rapidly spread, and by the 9th extended from the axilla to the sixth rib, and from the nipple to the vertebral groove. There was no pallor or collapse. The pulse was feeble and running. At 9 a.m. on the 9th the patient vomited undigested food, and complained of pain in the abdomen and great thirst; restlessness was not marked, but there was slight delirium. At 12.50 the patient suddenly died. During the whole of the time the temperature showed an evening rise and morning fall ranging from 97° to 102°.

At the necropsy the superior and inferior venæ cavæ were found to be much engorged. The heart was enlarged, and there was considerable dilatation, with slight hypertrophy. There was a large effusion of blood under the serratus magnus on the left side, containing 24 oz. of imperfectly clotted blood. The liver weighed 193 oz., the spleen 57 oz.; there being some capsulitis of the spleen, with hæmorrhages on the surface. Blood turbid, and of a chocolate colour. No change in marrow of sternum.

The following points are to be observed:

1. There was a great increase in number of white corpuscles (12 white to 16 red).

2. There was a great diminution in number of the red ones (one-third the normal number).

3. There was a great diminution in the amount of hæmoglobin (40 per cent. of the normal was present)).

4. The spleen was much, and uniformly, enlarged. It weighed 57 oz.

5. The liver was uniformly enlarged. It weighed 193 oz.

6. Several of the lymphatic glands were enlarged.

7. There were the following symptoms of Anæmia:

*a. Pallor.*—In this patient the pallor was not very obvious, owing to the bronzing of his skin. Anæmia presents different tints of colour according to the cause. Thus, there is the earthy tint of ague and lead poisoning, the lemon-coloured tint of pernicious anæmia, the yellowish tint of chlorosis, the whiteness of anæmia, due to loss of blood.

*b. Dyspnœa.*—Due to the diminution of hæmoglobin, and hence of oxygen. The dyspnœa of uræmia and anæmia must be borne in mind when patients complain of shortness of breath.

*c. Hæmic murmur.*—Cause unknown. Distinguished from an organic murmur, by not being conducted in the same direction; usually best heard over left third costal cartilage; always systolic; may be heard over third part of subclavians.

*d. Bruit de diable.*—Cause not certainly known.

*e. Cardiac dilatation.*—Recoverable, if the anæmia be cured.

*f. Œdema* of the ankles, and effusions into the various serous cavities are liable to happen. Probably due to the malnutrition of the vessel walls caused by the anæmia.

*g. Dyspepsia.*

*h. Headache.*—Often occipital, and *vertigo.*

*i. Hæmorrhages.*—Most common from the nose and gums, and in the retina. This patient had a huge one, which began under the left serratus magnus, and extending over the whole of the side of the chest, killed him. The hæmorrhages are probably due to the malnutrition of the vessel walls.

*k. Optic neuritis.*—One or two mistakes have been made from its not being borne in mind as a symptom of anæmia.

*l. Temperature.* — There are many theories for the cause of the rise of temperature in anæmia, none are satisfactory.

*m. Pulse*, feeble.

*n. Emaciation.*

*o. Coma* or *delirium;* this patient did not present these symptoms.

*p. Buzzing* in the ears.

*q. Amenorrhœa* in females.

*r. Fatty degeneration* of the heart not present in this case.

At the post-mortem examination the following points were observed.

1. The *blood* was of the consistency of paint and of a reddish light chocolate tint. This light colour of the blood due to the absence of hæmoglobin was so striking in one of Virchow's early cases that one the assistants thought the blood was pus.

2. The *lungs* were dry and very pale.

3. The *liver* was large and soft. The microscope would show crowds of lymphoid cells.

4. The *spleen* was uniformly very much enlarged and soft, and would likewise have shown crowds of lymphoid cells.

5. The axillary and some other lymphatic glands in the body were enlarged.

6. There was a large clot of blood under the serratus magnus.

7. The *eyes* showed optic neuritis.

8. The heart was dilated.

9. The bones, intestines, tonsils and ears were healthy.

Anæmia may be thus classified—

*a.* Anæmias secondary to other well understood conditions, viz. :—

Anæmia of fever
hæmorrhage.
phthisis.
syphilis.
scurvy, &c., &c.

*b.* Anæmia due to poisons.

Anæmia of lead.
arsenic.
phosphorus.
arseniuretted hydrogen.

*c.* Anæmia due to parasites (may cause hæmorrhage).

Anæmia due to anchylostomum duodenale.
bilharzia hæmetobia.
filaria sanguinis hominis.

*d.* Anæmias the cause of which is not understood.

1. Anæmia due to chlorosis.

2. Lymphatic anæmia (Hodgkins disease).

Any or all of the lymphatic tissues of the body may be enlarged, usually the glands, also tonsils, Peyer's patches, solitary follicles, medulla of bones, &c. The spleen contains a number of deposits of adenoid tissue running in trabeculæ, "hardbake spleen." The liver is enlarged and contains a similar deposit along the portal canals. There is a diminution of the red corpuscles.

3. Splenic anæmia.

Is very rare. Well described by Henry and Strümpell. The important change in the blood is a great diminution of red corpuscles. The spleen uniformly and greatly enlarged. These cases are probably very difficult to distinguish from old cases of ague.

4. Leucocythæmia.

Great increase in the number of white corpuscles, usually a diminution of the red. Any or all of the adenoid tissues of the body may be enlarged, but by far the most common is the spleen which is enormously enlarged (in this case it weighed 57 oz.), the medulla of the bones may be hypertrophied as in a case in the hospital two years ago, the lymphatic glands may be enlarged as in this case, or the liver which in this case weighed 193 oz.

5. Pernicious anæmia. The essential characters are that there is a diminution of red, no leucocytosis. Often the remaining red corpuscles have peculiar shapes. No cause is discoverable. The skin is a lemon color. High fever. Fatty heart.

It must be particularly remembered that the above five are only types, and that cases are often met with which cannot be assigned to any one of them, presenting characters common to several, and yet differing so among themselves that they do not form a distinct class. Dr. Fagge, Dr. Pye-Smith, and cases in clinical quoted to prove this.

It is an error to suppose, as some authors do, that Addison's pernicious anæmia is only due to the prolonged operation of the ordinary cases of anæmia. Case in clinical shows this; moreover, pernicious anæmia is commonest in men; patient is of lemon colour; many symptoms as optic neuritis and hæmorrhage which are rare in ordinary anæmias are common here.

*Aetiology.*—Splenic leukæmia seems to bear some relation to ague and Hodgkins disease to irritation of the glands.

*Treatment.*—If the cause is understood remove it. Chlorosis is cured by iron, arsenic may benefit the remaining classes of group d.

The division of anæmias into those cured best by iron and those best by arsenic is most important, and has probably some deep meaning.

## NEW APPOINTMENTS.

At the last moment we hear the following appointments have been made :—*House Surgeons*—A. E. Poolman and C. Metzgar; *House Physicians*—H. J. Campbell and H. E. Crook.

# Green Extracts.

## RESEARCHES ON THE PHYSIOLOGY OF THE BLOOD.

By DR. L. C. WOOLDRIDGE.

(In the following account of some of Dr. Wooldridge's work, I have thought it best to translate his paper on the Coagulation of the Blood in Ludwig's Festgabe almost entirely; the subject is so difficult, and the views so entirely novel, that I felt that if I tried to abbreviate them, I might run a great danger of making them unintelligible. I have appended to the translation of his paper a short abstract of some of his other work on the Physiology of the Blood.—E. H. S.)

### I. ON THE COAGULATION OF THE BLOOD.

It is generally assumed that the formed elements of the blood are a necessary factor in its coagulation, some authorities regarding the white blood corpuscles as the essential factor, others some special forms of corpuscles which have been denoted by the name of *Blutplättchen*.

Dr. Wooldridge's work has shown, that this doctrine is only true in a very restricted sense, if at all, and that the blood plasma itself, free from all formed elements, contains all that is necessary for coagulation to take place. He proceeds:—

It will be advantageous to consider the behaviour of four sorts of plasma, which are used in experiments on the blood,—peptone plasma, weak salt plasma, strong salt plasma, and cooled plasma.

*Peptone plasma*, as is well known, is got by bleeding an animal, into whose veins a solution of peptone has been injected, by which means, the blood is prevented from coagulating.

This blood is then *centrifugalised*. In this way the plasma is separated from the corpuscles, and can be siphoned off as a clear fluid free from any trace of formed elements.

In spite of this absence of formed elements, the plasma may be said to be spontaneously coagulable, since it coagulates, as Fano has shown, when submitted to the action of a stream of $CO_2$, or diluted with water, or filtered through a clay cell.

No one can regard these influences as 'Fibrin-factors'; rather should they be regarded as increasing the tendency of the plasma constituents towards dissolution. The natural process of clotting is hindered by the injection of peptone, and these influences acting in a reverse direction, neutralise and overcome this hindrance.

If, however, the peptone plasma is cooled for some time to 0°C, it can no longer be made to clot by these simple means. Under these conditions, a precipitate is formed in the plasma, and, with the precipitate, the plasma loses its power of spontaneous coagulation—*i.e.* of forming fibrin at the expense of its own substance.

We may here pause a moment to consider Alexander Schmidt's classical experiments on cooled plasma. Schmidt received blood from the vein of a horse into vessels surrounded by ice. In this way clotting was prevented, and the corpuscles settled gradually to the bottom of the liquid.

The plasma was siphoned off and filtered through filter paper, being kept all the while carefully at 0°C. The clear plasma obtained by this means shows little or no tendency to coagulate, and Schmidt ascribes this to the absence of the white blood corpuscles.

It is indeed very probable that in this experiment the white blood corpuscles are removed; but we know, from our experience with peptone plasma, that the consequence of cooling the plasma to 0°, is a precipitate which is of the highest possible importance for the spontaneous coagulability of the plasma. This precipitate would remain with the leucocytes on the filter, so we see that Schmidt's results by no means prove that leucocytes are necessary to coagulation.

For a second experiment, Schmidt simply allowed the cooled blood to stand. The red corpuscles sink to the bottom, and over them is a layer of white corpuscles. Clotting takes place before all the white corpuscles have sunk, and we find that it begins sooner, and is most complete in the deeper strata of plasma where the white corpuscles are most numerous.

But Schmidt himself mentions the fact, that a large quantity of granular matter is present with the white corpuscles.

He regards the granules as the débris of broken down corpuscles, without, however, adducing any special argument for his belief. It seems most probable that these granules are identical with the precipitate which we have seen to occur in plasma in consequence of cooling.

*Weak Salt Plasma* is got by centrifugalising blood which has been kept from clotting by receiving it direct from the vein of the animal into an equal volume of 10% solution of NaCl.

The plasma thus contains 5% of NaCl. It clots on dilution with water.

*Strong Salt Plasma* is obtained from blood which has been kept from clotting by receiving it into a saturated solution of $MgSO_4$ in the proportion of 3 or 4 parts of blood to one of $MgSO_4$ solution. This plasma does *not* clot on dilution, but requires the addition to it of fibrin ferment.

To explain this difference in the coagulabilities of the two kinds of plasma two assumptions have been made, neither of which are justified by facts: these are, that the strong $MgSO_4$ solution has no effect on the plasma, that it prevents the escape of the fibrin ferment from the cells, while the weak NaCl solution is powerless to do so.

If to peptone plasma, which clots on dilution, we add a saturated solution of $MgSO_4$ in the proportion of one part of the solution to four of the plasma, we find, either immediately or after a short time, that a granular pre-

cipitate is formed in the fluid. With the removal of this precipitate the plasma loses its power of spontaneous coagulation. It clots no longer on dilution, but does so on the addition of fibrin ferment, just as ordinary $MgSO_4$ plasma does.

Hence it follows that the addition of $MgSO_4$ is not without effect on the plasma, but, just as cooling does, precipitates some substance, on the presence of which depends the spontaneous coagulability of the plasma. This precipitate is in all respects similar to that produced by the action of cold. The belief so generally held that plasma by itself is unable to clot, rests mainly on the above-quoted experiments of Schmidt, and on the fact that $MgSO_4$ plasma is not spontaneously coagulable.

The fact was overlooked that both methods of obtaining the plasma were necessarily attended with the loss of a constituent of the plasma which was of the highest importance for its coagulation.

Another proof has been brought forward of the participation of the white blood corpuscles in the act of coagulation, and this is the fact, that leucocytes obtained from a lymph gland added to a plasma cause clotting. But it can be shown that the lymph corpuscles on entering the circulation undergo certain changes, so that the action of the leucocyte circulating in the blood plasma cannot be regarded as similar to that of the leucocyte obtained from a lymph gland. The following experiments show this:—

A dog was injected with a solution of peptone. Some blood that was drawn off did not clot spontaneously, but clotted quickly on the addition of lymph corpuscles. A large quantity of the same corpuscles were now injected into the vein of the dog, without producing the slightest effect. Shortly afterwards some blood was again drawn off. This specimen also would not coagulate until some lymph corpuscles were added to it, when it coagulated immediately. This experiment was many times repeated, but always with the same result. In no case was there a trace of intervascular clotting.

In a second series of experiments, the lymph corpuscles were injected into the dog without any preliminary injection of peptone. The only result was that blood drawn off after the injection coagulated more slowly. For the most part, however, this retardation of the clotting was but slight. In this case, also, addition of lymph corpuscles caused immediate clotting.

The injected lymph corpuscles have no action on the peptonised dogs and take no part in intravascular clotting. The blood, too, which is drawn off after the injection, and which must contain these corpuscles, does not clot, so that it is evident that the lymph corpuscles experience some change on their entry into circulating blood, whereby their power of causing coagulation is lost. Thus we are justified in coming to the conclusion that no satisfactory proof has yet been afforded of the necessary participation of the leucocytes in coagulation. The question whether any other formed elements take part in coagulation will be better discussed in the next section. *(To be Continued.)*

## SHORT NOTES OF RECENT CASES.

### PERFORATING GASTRIC ULCER.

On April 13th, a man was brought to the Hospital, two hours after falling down, apparently unconscious, while at work as a boot finisher. The men who brought him said that for half an hour he was speechless but gave signs of being in pain. When able to speak he complained of pain in the abdomen. When seen in the Surgery he was half sitting, half lying in a chair, now and then restlessly moving his head and arms. His face was pale, thin and sallow, his eyelids closed, his extremities cold, and his pulse at the wrist almost imperceptible. His abdomen was sunken but tender. When asked where the pain was he did not answer, but passed a hand over the abdomen. He was given brandy injections hypodermically, and then removed to Stephen under Dr. Pavy.

In bed he lay with his shoulders slightly raised and his legs drawn up. The abdomen was sunken but very tender and rigid. He referred the pain to no definite spot, sometimes to one side sometimes to the other. The breathing was thoracic.

Hot fomentations were applied to the abdomen, and after his pulse had improved a morphia injection gr. $\frac{1}{4}$ was given.

After being in the ward half an hour he was able to give a history of pain after food, with constipation, for the last few weeks. He sometimes vomited, but had had no hæmatemesis.

Soon after admission he vomited a little yellowish fluid. The following day the pulse was still feeble and the abdomen retracted. He was ordered 12 oz. of brandy and allowed a little milk by the mouth. The pain continued and he was given 3 or 4 morphia injections during the day.

He died 29 hours after admission, the abdomen at the time of death was still sunken.

*Post mortem.*—There was a small gastric ulcer

about one-third of an inch in diameter just internal to the pyloric orifice in the anterior wall of the stomach. Around the stomach was slight recent peritonitis.

The diagnosis, on admission, lay between hepatic or renal colic, perforation of the intestine or stomach and rupture of a small abdominal aneurysm, one of the last two being the most probable.

The history of dyspepsia was in favour of gastric ulcer, but the absence of distension of the abdomen, even 16 hours after the onset of the pain, appeared to me to be against it, and rather in favour of a small aneurysm rupturing behind the peritoneum.

I did wrong in giving the patient anything by the mouth, but I did so because I thought gastric ulcer out of the question. It is an interesting point that 30 hours after perforation from gastric ulcer there need not be enough peritonitis to cause even slight distension of the abdomen.

## Cirrhosis of the Liver, with Jaundice.

A woman, æt. 46, was admitted April 21st into Mary, under Dr. Pavy.

There was a history of rheumatic fever in the preceding November, followed by a sudden onset of deep jaundice.

She had become much thinner the last few weeks before admission, but had taken very little food. There was a definite history of alcohol.

*On admission.*—Was deeply jaundiced then and very weak. The abdomen was much enlarged, there were signs of fluid, and the liver was palpable below the ribs.

She had petechiæ on the back of the right wrist and over the chest. The motions were clay-coloured. There was no pain. She had an attack of delirium tremens which lasted three days from the time of admission. On May 1st she had bleeding from the gums.

She became weaker and died May 7th.

The liver proved to be cirrhotic, was about normal size, bright yellow, and very granular.

There was no growth in the course of the bile duct.

The diagnosis rested between the two chief causes of jaundice with ascites, namely, cirrhosis and growth affecting the bile passages.

The history of alcohol, the delirium tremens, the petechiæ on the skin and the bleeding from the gums, without abdominal pain, were in favour of cirrhosis, but the absence of bile in the fæces, pointed to obstruction of the duct.

This absence of bile, according to Fagge, "seldom, and perhaps never," occurs in jaundice from cirrhosis. T. F.

## OBSTETRICAL NOTES.

During the last week of my term of office as Junior Charity, two cases occurred in the Extern department of shoulder and elbow presentation respectively, each being followed by spontaneous evolution. According to the Guy's Hospital Charity statistics, out of 22,980 cases 77 have been shoulder presentations, whilst six of these only were spontaneously evolved. Hence a short account of these two cases will be of great interest owing to the rarity of this termination of labour.

### CASE I.

Patient, æt. 19, primipara, was attended in her confinement on May 26th by Mr. C. Spurrell, who, on his arrival, found the os uteri fully dilated and vertex presenting The child was soon born, and, on further examination, another bag of membranes was found presenting, on rupturing which a right hand was made out, placed upon the right shoulder; the hand shortly after came down and presented outside the vulva. About half-an-hour later very strong uterine contractions ensued, and the breech swept over the perinæum and was born, the shoulder being well driven up against the pubes, the head following easily.

The child was a full-term male, 12½ inches in length, and 3¾ lbs. in weight. It was dead. The patient convalesced without a bad symptom.

### CASE II.

Patient æt. 27, sixth confinement. Was attended on May 29th by Mr. R. G. W. St. Cedd, who, on examination, after the membranes had ruptured, found the right elbow presenting. He at once sent up for me, but, on my arrival, the child had been born two minutes in the following way:—The pains became very strong, and the hand and arm appeared through the vulva. At the same

time the breech came down over the perineum and was born. The left arm was then drawn down and the head quickly followed, the right shoulder being fixed against the pubes. The child was dead. It was a seven months' male fœtus. At the umbilicus was a transparent sac in which several coils of intestines could be seen.

The mother recovered rapidly.

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These two cases very well illustrate the class of cases in which spontaneous evolution ensues. In the first case the child was one of twins and was of small size, and in the second it was a seven months' fœtus. Owing to the doubling up of the child, and the great pressure to which it is subjected, it is nearly always stillborn, as was the case in these two instances. Of the six previous children in the Guy's Charity, three were premature, two were twin children, and one was decomposed.

CASE III.

On June 16th a woman, aged 34, a laundress, came up to the Surgery, complaining of labour pains. She stated she was seven months gone in pregnancy, and her external appearance fully corroborated her statement. On making a vaginal examination, I found the cervix hard, somewhat elongated, and the os was not patulous. I then asked her to unloosen her clothes so as to see her abdomen. This she did with reluctance, at the same time taking great care in rolling up her under clothing on to her chest. The abdomen was generally distended, and there was no doughy swelling. Percussion elicited a very tympanitic note, but a bimanual examination could not be obtained, and, owing to muscular rigidity, no impulse was obtained from the abdomen to the finger in vagina. On auscultation no uterine souffle or fœtal heart sounds could be heard. The breasts were small, no pigmentation of areolæ or enlarged tubercles, and no milk could be squeezed out. On pulling down the clothing over the abdomen again, several rags rolled out, which the woman said the doctor had ordered her to wear.

It was very evident that this was a case of pseudocyesis, the distension of the abdomen being neurotic, whilst the general demeanour of the woman and her padding showed her up as a malingerer.

G. BLACK.

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*To the Editor of* GUY'S HOSPITAL GAZETTE.

SIR,—Can any of your readers enlighten me on the following point:—Returning home the other evening after a day's fishing, and coming across the moor, I observed in front of me three of the genus "Gillie," and from their erratic course, it was evident that the whusky had been circulating. I have heard that when this is the case, very little time is wasted in conversation, and wishing to see if this was true, I followed close behind them for *four* miles, and not a single word was spoken, when suddenly I hear the following:—1st Gillie: "I never tasted better whisky, nevermore." 2nd G.: "So did I, too." 3rd G.: "Neither did I, whatsoever." Dead silence for another mile, when I turned off home. Were the above cases of aphasia?—Yours truly,

FORFFS.

Helensburgh, Scotland, June 21, 1888.

## PHILOSOPHIA MEDICI.

### REFLECTIONS AND NOTES

By WALTER MOXON.

1857 to 1869.

XII.

If we had only to think of the individual and his good, we should be right enough in giving the highest credit to the badly-disposed person, who overcomes his nasty disposition, and does a good act in spite of it. But we want to cultivate the nicer sort of people, who act for other people's happiness, and are happiest when doing so, and not under pain and constraint. And then, further, why and how did the bad man grow bad? Could he not have checked himself earlier? He has only a bad history.

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The impersonality of the liking you have for a landscape is its charm.

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The German says: *Wie geht es* (How goes it with you?) He has surrendered his individuality to the Vaterland, and the mysticism of overwrought Kant and Schelling. The Frenchman says: *Comment vous portez vous* (How do you carry yourself?) He is thinking of his own outside look. How do you bear yourself?—dignified?—stooping?—embarrassed? The Englishman says: *How are you?* He is thinking of the self. You, by yourself—you. How is it inside, in that favourite seat of acquisitiveness, appetite, and self-esteem—that is your English soul—like I feel my own to be? The contrast of the three nations is very well shown in this way, by their forms of complimentary address in meeting each other.

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How a little vanity gives more happiness than all the laborious thought and acquirement of the humble and timid, and sincere mind.

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Impulse, Aim, Duty—the three foundations of moral relations.

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When any portion of the system of thought you are raising in any subject is founded upon the readings of human authority, then beware! I don't say you are wrong, but know what you are doing; for, forthwith, an element of weakness is in your fabric. It grounds no longer (so far as it rests in that way) on Mother Earth, and the strength we all derive from pure Nature is failing us.

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In our comparison of virtue and happiness, is there not rather a disposition to check our own longing, that this act may be according to virtue, while we learn whether it will or will not go contrary to others' happiness? So that we distinguish between the goodness of our own act and any goodness arising from its effects.

# Passim.

GREAT credit, we think, is due to our Cup crew for the excellent show that they made on Thursday the fourteenth in their heat, and though not successful, they far surpassed the expectations of either their friends or opponents. We have given elsewhere a full account of the race, and it will be seen from that, that the disadvantages under which they suffered were enormous. To begin with, they were deprived of their stroke, E. M. Pilcher, only the Saturday before the race, his presence being required in Cambridge for examination purposes a week longer than had been anticipated. In addition to this, the two reserve men were both engaged to play in the Cricket Cup Tie. Consequently a practically fresh crew had to be organised the Saturday before the race. Under these circumstances we think they did exceedingly well, and there is no doubt but that with the original combination we should have given St. Thomas's a hard race for the Cup. Let's hope for better luck next season.

THE cricketing difficulty does not appear to have been solved yet. The failure to get up a team continues. Only last Monday we observed, posted up in the Colonnade, a notice to the effect that the match for the Wednesday following was scratched owing to the inability to obtain men to play. In consequence of this state of affairs, the Captain and Secretary last Monday week sent in their resignations. The Committee, however, have wisely asked them to reconsider the matter.

ON another page will be found a review of the present cricketing season, so far as it has gone, and from the facts given there, it will be seen how the recent troubles have arisen.

WE hear that the following have taken the M.D. of Durham :—A. E. Larking, A. R. Manby. Also that R. Thompson has passed the final M.B., Durham.

WE are given to understand that the following have passed their second M.B., Cambridge :— W. Winslow, F. Wellford, E. M. Pilcher, A. Ellis Durham. We are also pleased to hear that H. B. Bolus has passed the first examination for the M.B.

WE would draw the attention of our readers to the following events :—

| | | |
|---|---|---|
| June | 25 | Examination for Mackenzie Bacon Prize. |
| „ | 28 | Second Conjoint Examination begins. |
| July | 1 | Last day for sending in Gurney Hoare Prize Essays. |
| | | Application to be made for Schedules for First Conjoint Exam. |
| „ | 2 | September Appointment List opened. |
| „ | 9 | Intermediate M.B. Lond. Exam. begins. |
| „ | 10 | Third Conjoint Exam. begins. |
| „ | 14 | September Appointment List closed. |
| „ | 19 | Prize Competition for First Year's Students. |
| „ | 20 | Prize Competition for Second Year's Students. |

WE would specially impress upon all First and Second Year's men the advisability of going in for the prizes of their years, and we hope that the entry will be a large one.

NAAMAN and Luke Wards have lately migrated to Addison Ward for the summer months. Mr. Howse's and Mr. Davies Colley's dressers will soon be qualified for the Alpine Club.

THE Annual Distribution of Prizes will take place on Wednesday, July 4th. We understand that refreshments and music will be provided in the grounds. The Wards and Museums will also be thrown open to the visitors. We believe that a large attendance is expected. In the evening the Biennial Dinner for past and present Students of the Hospital will take place at the Holborn Restaurant, Dr. Pye-Smith in the Chair.

LAST week we mentioned that Colclough with his innings of 124, held the record for the Inter-hospital matches. But Shenton has beaten him, and we have to congratulate him for his hard hit innings of 172.

# Sport.

## A REVIEW OF THE GUY'S CRICKET SEASON UP TO THE PRESENT.

Owing to the recent trouble which has cropped up amongst the officials of the Cricket Club, it will not be out of place to look back on the various matches played, and to state a few facts about the case.

Taking the fixtures in order, commencing with the Surrey Colts, we find that in this match the team was strengthened by two old members, Scott and Cruikshank, both of whom were successful: the others playing being Messrs. Colclough, E. J. D. Mitchell, W. G. Mitchell, J. H. Roberts, J. H. Busteed, J. C. Shenton, H. A. Smith, Ingram and H. B. Rygate. The result was a well-earned victory for us.

In the next match against the Crystal Palace, which ended in a draw, Steele, Henderson and Yorath took the places of Scott, Cruikshank and Ingram. For Richmond, on May 16th, a team could not be raised, so the Secretary was bound to scratch a couple of days before. There was, however, some excuse for this proceeding, as Roberts dislocated one of his fingers during the Palace match; Shenton was also laid up by a nasty crack, and W. G. Mitchell found his old weak spot, his right shoulder, troubling him: whilst Rygate and Smith could not get away from their ward work. Our old members, too, were unable to play, so, with five of our team absent, it was considered neither wise nor complimentary to such a strong club as Richmond to take down against them what would have been practically a second eleven.

Caius College was claimed by W. G. Mitchell as his own match, it being principally through his influence that it was got on, and, therefore, is not to be included in our card.

It was found absolutely necessary on the evening before Chiswick Park to send a telegram stating that a team could not be raised, for, after very great difficulty had been experienced in getting up an eleven such as it was, at four o'clock the evening before, three of those up pencilled their names. The causes, whatever they may be, which led to this proceeding were inexcusable, for on the next day our first Cup Tie against University was to come off, and in consequence the Cup Team had been chosen for this match, with the exception of the last place, to be decided by the performances of certain individuals against Chiswick. No less than six of the Cup Team elected found reasons preventing their going down; a state of affairs almost unique in the history of Guy's cricket.

Middlesex was, nevertheless, easily defeated by 3 wickets and 295, principally through the scoring of Messrs. Colclough, Shenton and Roberts.

On Saturday, May 26th, the team against Reigate Hill was very weak—Roberts, E. J. D. Mitchell, Smith, Featherstone and Rygate being the principal absentees. In consequence we were badly beaten, although our veterans, F. M. Russell and G. W. Mitchell, did their best for us.

On Wednesday, May 30th, a still weaker team was taken to Pallingswick. Scott had the command of a United Hospital match against Richmond, which included the brothers Mitchell and Cruikshank, so that in this case Guy's must solace themselves with a little reflected glory, for Richmond were badly beaten on the same day that Pallingswick were victorious over us by 10 wickets.

Saturday, June 2nd, found us with nine men playing Brentwood. B. Jackson, who bowled very well for the 2nd Eleven, was given a trial, but missed his train and sent a telegram as a substitute. Therefore, the services of two Brentwood men were called into requisition, and several slices of good luck helped us to win by the narrow margin of 2 runs. This match again with the 2nd round of the Cup Tie on the Monday following found four men away, namely, Busteed, Smith, Rygate and Roberts. Against University, the Cup Team was slightly altered: Steele and Ingram playing instead of Smith and Rygate. Thanks to a long stand by Shenton and Colclough, and some capital bowling on the part of the brothers Mitchell, we were very easily through the second round.

To represent Guy's against Bickley, the strongest Club round London, and having certainly one of the best grounds in the neighbourhood, we find six Guy's men in the team, and, of the six, two were a little less than useless as cricketers. Three University men were asked at the Cup Tie two days before, and two substitutes were very kindly lent us by the opposing side. The defaulters were Colclough, who was up at Cambridge in the toils of examination, E. J. D. Mitchell, Smith, Rygate, Yorath, Shenton and Featherstone; one need hardly say anything as to the end of this day's cricket.

At Streatham seven men only appeared, Colclough was still up at Cambridge. Busteed was knocked up, the Brothers Mitchell, Shenton and Smith were not playing; no substitutes could be found, so we were sent in to bat and our seven men disposed of for 28 runs.

Streatham, for the loss of three wickets, passed our total, and then rain gave them a good excuse for putting an end to the absurdity of a match.

The events of this week formed the last straw, and Colclough and Busteed in consequence sent in their resignations.

On Thursday, June 14th, the usual Cup Team was selected; and the examination at Cambridge luckily allowing Colclough to be in London late on Wednesday night, a full team was played, and after a tight game against time we defeated Thomas's by 63 runs. This comforting result being alone due to the pluck of the last three wickets, aided by an invaluable 55 from H. A. Smith, who was out last, having been at the wickets while no less than 131 runs was put on. The Brothers Mitchell shared the Thomas' wickets between them; Umney made a gallant attempt to save his side, but injudiciously forcing the game ran his partner out twenty minutes before time.

On Saturday, June 16th, a strong batting team played the Phellerds at Maidenhead, but could not hold their own against the team opposed to them, which included A. P. Lucas, C. M. Godfrey, L. G. B. Ford, Humphrey and Fisher of Cambridge renown.

For Wednesday, the match against Beckenham has to be cancelled, owing to the inability of most of the team to get away. So that there is only now one match, namely, that against Gravesend, on Saturday, June 23rd, before the final against either Barts' or London, on Monday and Tuesday, June 25th and 26th, and it is sincerely hoped that all the Cup team will use every endeavour to play in this, their last trial, before the days which are to settle our right to be holders or not of the new cup for at least one year.

Summing up the matches in which the various men have played, we find, exclusive of the Cup matches, out of eleven fixtures, including Richmond, Chiswick Park and Beckenham, which were cancelled, W. G. Mitchell, H. B. Yorath, H. B. Rygate, F. Colclough, J. C. Shenton and T. S. Jackson, in 5 matches; E. J. D. Mitchell and G. W. Mitchell, in 4 matches; H. A. Smith and F. M. Russell in 3 matches; Ingram, Steele, Scale, Hunt and Henderson in 2 each; while Wilks, Cabb, Budge, Jewell, Sharman, Pratt, Bowen, A. T. Brown, Cruikshank and Featherstone have assisted in one.

Coming to the probable causes which have so affected by far the strongest card we have ever had for the Hospital, we find several which may help in solving the mystery.

Firstly, the strength and number of matches on the card. Our energetic secretary, in trying to raise the tone of the list, may, perhaps, have exceeded the numbers with which we could have successfully coped, for it has been the complaint of many men that they could not play two matches a week—for two very good reasons, namely, time and money, the latter being the principal factor. There is no denying the fact that too much money is charged for cricket matches, and that as time goes on this evil will kill itself. A man has to pay 2/6 for his lunch, exclusive of drinks as a rule, and in a few places the lunch is charged at 3/. Under ordinary circumstances a shilling is the amount a man spends on his mid-day meal, and a whole day match costs on the average 5/6, which, if repeated twice a week, makes a large hole in a poverty stricken medical student's pocket.

The argument against this point is that a man should debar himself from his evening's enjoyments, which usually in themselves, and their results, get through far more money and time than a cricket match will, and that a cricketer, for the sake of his Hospital, should not "burn the candle at both ends," and then put down his extravagance to the expensive game cricket.

The real cause, however, of this lamentable failure has been due to the few really good cricketers who have joined the Hospital during the last three years; the loss of the two previous seasons, in both quantity and quality of the members of the team, has therefore not been replaced; and, after the high pitch to which we gradually arrived during the last four years, it seems hard—very hard—that we should now have to go down hill.

The moral is that for next season, should we intend at all to keep up our reputation, we must confine ourselves to one whole day match a week, on the Saturday, against the best Clubs we can get (the drawback being that our failures to keep our appointments this season will debar us from a large number of the first class clubs), and to play a half-day match only, on the Wednesday, in which our Second Eleven can be joined with any of our First who may care to play.

As union is strength, we must play next year our full team once a week, instead of being obliged to divide it as we have been forced to do this season, with the result that we disgust our opponents as well as dishearten ourselves.

## ANNUAL SPORTS.

The Annual Sports were held at the London Athletic Club Grounds, Chelsea, on Monday, 11th June, and were again this year favoured with lovely weather. The fierce rays of the sun were tempered by a refreshing breeze, which was very pleasant to the onlookers, but not quite so pleasant to the competitors in the long jump. We were sorry to see so few Guy's men present, and we hope next year there may be four or five times the number that there were this year. One or two Committeemen were conspicuous by their absence, and we are afraid that the officials did not make known sufficiently the date of the Sports. It is a great pity that, in a large Hospital like Guy's, it is necessary for anyone to be informed of the date of the Sports, as every Guy's man should make it his duty to find out when they are going to be held, and then come and bring his friends. The ladies are always present in strong force, and this year was no exception to the rule; but we never saw a single member of the Guy's nursing staff. We trust that another year all the Hospital staff may be carefully informed of the date of the Sports, and if they are, we feel sure they will not only put off visiting the wards, or doing any operations on that day, but also be present themselves at the meeting. This year we noticed one member of the surgical and four of the medical staff. One suggestion (which we hope the working committee will excuse us for making) is that next year the Sports should not begin until 3 or 3.30 p.m., and that the time between the heats of the sprints (100 yards especially) and other races should be lessened in such a way that the Sports might occupy from commencement to finish 3 to 3½ hours. Wellington's Light Cavalry Band enlivened the proceedings with a good, though very short, selection of music. At the conclusion of the Sports, Mrs. Wooldridge kindly presented the prizes. A. Allport, the winner of the sack race, was presented with a bouquet of red radishes besides the splendid tobacco and cigar chest presented by Mr. Millson. All races were handicapped by the Committee.

100 YARDS.—Heat 1: N. Instone, 8 yds. start, 1st; W. G. Mitchell, 5, 2nd. Won by ½ yd. Time, 10⅘ sec.

—Heat 2: C. J. Prime, scratch, 1st; H. S. Fraser, 7, 2nd. Won by ½ yd. Time, 11¼ sec.—Heat 3: W. G. Beyts, 4 yds., 1st; H. M. Jordan, 1, 2nd. Time, 11 sec. —Final Heat: Beyts, 1st; Instone, 2nd; Mitchell, 3rd; Prime, 0. Time, 10⅘ sec. This was a specimen of good handicapping, and was won by a few inches; a foot between second and third.

ONE MILE.—P. Wilmot, 65 yds. start, 1st; A. T. Harrison, scratch, 2nd; W. H. Dixon, 65, 3rd. Won by over 100 yds. Time, 5 min. 40 sec. The competitors appeared to think there was some mistake in the time of this race, but it was probably correct. Harrison, on his old form, ought to have won this, as he can do 4 min. 45 sec. Wilmot can easily beat his 5 min. 40 sec., as he afterwards showed when he ran the first two miles of the three miles' race in 10 min. 49 sec.

PUTTING THE SHOT.—W. Macdonald (owes 8 in.), 32 ft. 5 in., 1st; Bertie Whyte (owes 4 in.), 31 ft. 8 in., 2nd; W. S. Mitchell (owes 20 in.), 32 ft. 6 in., 3rd.

220 YARDS.—C. J. Prime, scratch, 1st; N. Instone, 12, 2nd; H. A. Smith, 7, 3rd. Won by a yard; two yards between 2nd and 3rd. Time, 24⅕ sec.

LONG JUMP.—C. J. Prime (owes 12 in.), 18ft. 6 in., 1st; W. S. Mitchell (owes 12 in.), 17 ft. 9 in., 2nd; H. A. Smith (owes 12 in.), 17 ft. 4 in., 3rd.

880 YARDS.—N. Instone, 40 yds., 1st; P. Purnell, 35, 2nd. In this case one man retired, although quite fresh, possibly thinking he had no chance; but if he had run it out he might have been placed. It is in the last 200 yards of this race that one can often make up a lot of ground—especially if the leaders have gone off at the start at too hot a pace for themselves—to spurt at the finish. Time, 2 min. 10⅖ sec.

60 YARDS SACK RACE (Prize presented by Mr. Millson). —A. Allport, 1st; W. H. Jewell, 2nd. This race was instituted at Guy's sports for the first time this year. All the competitors had to start lying on their backs, with their heads towards the winning post, and no man was allowed to take his hands out of his sack. The winner, it was very evident, had been in a sack once or twice before. He was one of the last to get up, and when he did, most of the others had got at least ten yards start of him; but he soon overtook all, and waltzed in an easy winner. We noticed two of the competitors still lying on the ground in their sacks at the starting-post when Allport was at the winning-post. Next year, we think, this should be handicapped, as well as all the other races.

HIGH JUMP.—C. J. Prime (owes 1 in.), 5 ft. 4 in., 1st; W. S. Mitchell (owes 2 in.), 5 ft. 3 in., 2nd; W. D. Macdonald (owes 2 in.), 3rd. Macdonald ought to have jumped more than he did, considering how easily he jumped every height up to the one he missed. Prime surpassed himself at this, as he was not able to get over 5 ft. last year.

440 YARDS.—P. Purnell, 25 yds., 1st; A. T. Harrison, scratch, 2nd. Won by 1½ yds. Time, 56⅕ sec. The scratch man ought to have made the pace warmer in the first half of the race.

120 YARDS HURDLE.—W. S. Mitchell (owes 10 in.), 1st; Prime (scratch) was caught by Mitchell at the seventh hurdle, which he knocked over. Holman did not finish. Time 22⅖ sec.

THREE MILES.—P. Wilmot, 175 yds. start, 1st; J. Eastment, 40 yds., 2nd; W. Bligh, 50, 3rd. Won by over a lap; 60 yds. between 2nd and 3rd. Time, 16 min. 24⅗ sec.

440 YARDS OPEN HANDICAP.—W. Kent Hughes, St Bartholomew's, scratch, 1st; S. L. Hinde, 12 yds. start, St. Bartholomew's, 2nd. Time, 53⅗ sec.

As regards the United Hospitals' Sports, and the chance we have of getting the shield. We have won it five times—viz: 1867, 1871, 1872, 1877, 1878. We ought to be ashamed of ourselves for not having won it since 1878. What is the reason? There are two or three reasons. First of all, there are several good athletes in the Hospital who will not take the trouble to run for their Hospital. Secondly, those who are chosen to represent Guy's in the United Sports (not a small compliment to them) do not take the trouble to train carefully, and by training we do not refer to the eating and drinking so much as practising for their special events regularly, keeping good hours, and keeping themselves "fit" generally.

This year we shall trust chiefly, but I hope not entirely, to C. J. Prime, W. G. Mitchell, P. Wilmot, W. Macdonald, H. A. Smith, and J. Eastment. These men all ought to have been carefully training during the last fortnight, and should continue to do so. It seems to me that we have improved somewhat since last year in one or two events, but we have fallen off in others. Compare Putting Shot last year with the same this year. Last year (Mitchell, 31 ft. 2 in.; Macdonald, 29 ft. 9 in. United were won with a put of 33 ft. 3½ in. Cannot Mitchell and Macdonald improve to 33 ft. 6 in? Long Jump (Guy's last year), Prime, 17 ft. 11½ in. United won with a jump of 19 ft. 10½ in. In 1885 Prime won United with a jump of 20 ft. Mitchell could only do 5ft. ¼in., and Prime could not do 5 ft. in the High Jump last year. At the United 5 ft. 5 in. took the prize. The three miles was done in 18 min. 27⅖ sec. last year at Guy's sports, and was won at the United in 16 min. 30⅖ sec. Mitchell won the Hurdles at Guy's last year in 19 sec., and at the United in 17⅘ sec. Bartholomew's are formidable opponents this year. They have very good men in Kent, Hughes, Hogarth, West, Quennell, Badger, Martin, Kent, and Newington. Thomas's have Brooks (Throwing the Hammer), Battensby (Three Miles), Hanwell, and Willock.

Guy's should get second in the 100 Yards and 200 Yards, first or second in Putting the Weight, first in Throwing the Hammer, Hurdles, and High Jump, and a first or second in the Long Jump, and first in the Three Miles. Those who are selected must make up their minds to do at least what is stated.

Hints for those who run in the United Sports:

1. Do not pay too much attention to what you eat, except on the day of the sports, and on that day don't

eat anything after 11 a.m., and *take your time over whatever you eat.* Be careful about your drink always while training.

2. Don't smoke while in training. Long distance runners should stop smoking some five or six weeks before the sports, but short distance might possibly continue a week or two longer.

3. Early to bed and early to rise, followed by a cold shower.

4. Take plenty of walking exercise.

5. Feed well, and vary the kind of food. Vegetables in moderation.

6. *Sprinters* learn to start quickly. Get someone to give the signal, and run forty yards. Pay particular attention to your first three strides. Always run at your best speed in practice. The practice of two successive days should not be exactly similar in character.

7. *Long distance runners*, at the commencement of a preparation, should run the full course daily, the pace being gradually increased. Later on, when the body is in better condition, devote one day in three to the whole distance, if it be half or one mile, and one day in four if it be three miles. Towards the close of a preparation the work should be eased, and on the day of the sports complete rest should be taken up to the time of the race.

H. V. H.

## CRICKET.

### CUP MATCH (2ND ROUND).

### GUY'S v. UNIVERSITY.

The above match was played on Monday, June 4th, at Castle Hill. We won the toss, and much to the surprise of our opponents, sent them in first. The wicket was in splendid run-getting condition, and it, therefore, seemed a very unwise thing for us to have done. However, it turned out to have been very wise policy in the end. Thanks to some splendid bowling on the part of W. G. Mitchell and Yorath, we got rid of University for 85, the principal contributor to this being Ringrose, who put together 25 not out in very creditable style. W. G. Mitchell took 4 wickets for 37 runs, while Yorath got 3 wickets for 3 runs. E. J. D. Mitchell was, unfortunately for us, unable to bowl, owing to his knee being bad, through his injury to it in the Brentwood Match, and there being no necessity for it he did not bat subsequently. On our going in, things looked very black for our opponents; Shenton and Steele putting on 60 for the first wicket (out of which Steele made 4), while on Colclough's joining Shenton, 164 was put on before the former was out for a splendid 67. Shenton continued to bat in splendid style and was not got rid of till he had made 172. His hitting was brilliant, his innings including two 5's, three 4's, and thirty-three 3's. This is the highest individual innings yet made in a Cup match. We were not all out till 343 runs had been put together, thus winning our match in the 2nd round by 258 runs. Scores:—

UNIVERSITY.

| | |
|---|---|
| C. T. Vangryzel, b W. G. Mitchell | 19 |
| F. C. Wynn, b W. G. Mitchell | 0 |
| H. P. Job, run out | 8 |
| F. Faichnie, b W. G. Mitchell | 1 |
| R. L. Thomas, b W. G. Mitchell | 4 |
| E. Ringrose, not out | 25 |
| J. R. Bell, b W. G. Mitchell | 1 |
| L. E. Owen, b Roberts | 0 |
| C. C. Edmonds, b Yorath | 7 |
| G. T. Hubert, b Yorath | 0 |
| H. Y. Fullerton, b Yorath | 5 |
| Extras | 15 |
| Total | 85 |

GUY'S HOSPITAL.

| | |
|---|---|
| J. C. Shenton, b Owen | 172 |
| W. K. Steele, b Vangryzel | 4 |
| J. H. Roberts, c Vangryzel, b Ringrose | 7 |
| F. Colclough, c Fullerton, b Hurbert | 67 |
| W. G. Mitchell, b Owen | 16 |
| H. B. Yorath, b Owen | 1 |
| T. S. Jackson, b Faichnie | 13 |
| E. J. D. Mitchell, did not bat | 0 |
| G. Featherstone, not out | 15 |
| R. Ingram, b Faichnie | 0 |
| J. H. Busteed, c Job, b Owen | 6 |
| Extras | 42 |
| Total | 343 |

### CUP MATCH (SEMI-FINAL).

### GUY'S v. ST. THOMAS'S.

Played at Castle Hill, on June 14th, and resulted in a well-earned victory for us by 66 runs; Guy's, with proverbial slackness, turning up with only eight men, Messrs. Colclough, W. G. Mitchell and Rygate not arriving until close on twelve o'clock. Our opponents exercising their right of making us start before eleven o'clock, with questionable good taste compelled us to toss at 10.55. Fortunately we won the toss, and with but eight men to take the field were compelled to elect to bat. This was decidedly a bit of bad luck for us, as the wicket was very bad and promised to be easier in the afternoon. However, there was no choice for us; so Featherstone and Shenton commenced our batting at eleven o'clock. The latter was out, unluckily, for 8, but the former, batting exceedingly well, as he always does when we most need help, made 21 before being got rid of. Colclough, arriving in time to go in second wicket, helped us with a splendid 49. In spite of all this, we could only put together 117 for the loss of our 7 best wickets, and it looked like a "walk-over" for our opponents. Our last 3 wickets, however, nearly doubled our total and saved us undoubtedly in the very nick of time. Smith was the principal contributor, and his innings of 55 cannot be too highly praised, coming as it did when defeat seemed unavoidable. The last three wickets put on 91 runs, thus turning imminent defeat into certain victory. On our opponents going in, the brothers Mitchell showed us what they could do when put to it, and "romped" our opponents out for 142 runs, W. G. Mitchell taking five wickets and E. J. D. Mitchell

four. Thomas's first four wickets fell for 19 runs, and this made a win for us so certain that slackness set in, Umney being missed five times, and consequently allowed to make 55, not out. He, however, made a plucky effort to save his side. We are now left to meet either "Bart's" or "London" in the final, and if our men will only play up there is no reason why we should not make it a hard job for either hospital to beat us. Scores:—

GUY'S.

| | |
|---|---|
| G. Featherstone, b Harper | 21 |
| J. C. Shenton, c Haper, b Umney | 8 |
| J. H. Roberts, c Christe, b Isaacs | 9 |
| F. Colclough, c Saunders, b Isaacs | 49 |
| E. J. D. Mitchell, b Harper | 6 |
| W. G. Mitchell, c Northcote, b Harper | 3 |
| H. A. Smith, b Isaacs | 55 |
| T. H. Yorath, c Saunders, b Umney | 3 |
| T. S. Jackson, c Harper, b Umney | 10 |
| J. H. Busteed, c Christie, b Umney | 13 |
| H. B. Rygate, not out | 11 |
| Extras | 20 |
| Total | 208 |

ST. THOMAS'S.

| | |
|---|---|
| F. E. Saunders, b W. G. Mitchell | 1 |
| C. G. Wilson, b W. G. Mitchell | 37 |
| J. Shepheard, c Jackson, b W. G. Mitchell | 0 |
| P. Northcote, b E. J. D. Mitchell | 8 |
| G. M. Harper, c & b E. J. D. Mitchell | 0 |
| N. P. F. Toller, c Shenton, b E. J. D. Mitchell | 3 |
| W. F. Umney, not out | 55 |
| J. H. Barrs, c Jackson, b W. G. Mitchell | 0 |
| F. Christie, b W. G. Mitchell | 8 |
| E. P. Isaacs, c & b E. J. D. Mitchell | 0 |
| T. W. E. Moreton run out | 11 |
| Extras | 19 |
| Total | 142 |

## INTER-HOSPITAL ROWING CUP COMPETITION.

On Thursday last, in the gloomiest of weather, the heats of the Inter-Hospital Cup competition were rowed off on the ancient course from Putney to Hammersmith.

The crews of heat 1 were ordered to take up their positions at 3.30, while the tide was still flowing strongly, and, as on former occasions, a steamer carrying the umpire and visitors accompanied the race. The spectators lined the bank, and on the steamer itself the attendance was meagre, Guy's being represented by three gentlemen only, who, it must be said for the credit of our Hospital, made their presence fully felt by the very creditable enthusiasm they showed. The fewness of spectators was a circumstance to be regretted, as the engaging crews gave promise of showing far higher form than ever they had done before, and for many weeks since regular practice, close racing had been prognosticated.

The race was looked forward to with great anxiety by the Guy's crew, as it was only at the last hour that they finally decided to row owing to the numerous mishaps that had befallen them during practice; and in reference to these it is enough to say, that their boat had been definitely arranged only the Saturday before the race, and they were thus competing unpractised and untrained.

The Captain, Pilcher, had to remain in Cambridge over the 14th for examination purposes, a piece of news not made known to him till Saturday the 9th; and while on that day he was expected to return and take his seat permanently in the boat, the unwelcome intelligence was received by the Secretary, that he would have to disappoint us altogether.

Then there followed heated discussions amongst all concerned, many urging the Committee to scratch; more urging them to enter; but, after the matter had been many times considered, and as many times reconsidered, it was ultimately decided to enter the crew with W. Swayne as bow, Durham occupying Pilcher's seat as stroke.

The crew was thus completely upset, and the chances of making anything of a show seemed gone. The drawing placed Guy's into 2nd heat with St. George's and St. Bartholomew's, St. Thomas's and Middlesex, the only other crews competing, having to engage one another.

In the first heat the rowing was uninteresting, as Thomas's proved faster over the whole course. Middlesex, in the early part, broke two strings off their riggers, which caused them great discomfort; but it is doubtful if, apart from this misadventure, they could ever have given their opponents trouble. Middlesex got the best of the start, and led for 50 yards. Thomas's then began to gain, and drawing up level with them opposite the London R. C. House, took the lead when the accident to the Middlesex boat above mentioned occurred. St. Thomas's now went away fast, and, increasing their advantage for the rest of the course, won as they pleased.

In the second heat, St. George's (Surrey station), St. Bartholomew's (Central station), and Guy's (Middlesex station) started. St. George's were faster away and led Guy's by half a length, who, again, were a length in front of Bart's. Guy's now rowed 44 to the minute, and gained rapidly on her opponents, and such was the pace at which they moved their boat that at the steps they were no less than three lengths in front of George's and four in front of Bart's. Durham now slowed to 40, and a steamer coming by at the same moment the Guy's boat rolled badly, and George's came up to within two lengths. The Guy's crew still rowed pluckily, but want of training and combination began to tell upon them, and George's gained still further, being only half a length behind at the Soapworks. The excitement was now great, as Guy's still lead, though now only 300 yards from the finish. At this spot a desperate struggle ensued, as St. George's put on a grand spurt. Durham responded with a quicker stroke, but St. George's got the better of it, and now for the first time assumed the lead. St. Bartholomew's were still a length behind Guy's. The race ended in this way:—George's, first; Guy's, 1¼ lengths behind; and St. Bartholomew's 1½ lengths behind Guy's. Crews:—

*St George's.*—R. L. Romer, 10st 3lbs; W. MacPherson, 9st 8lbs; E. P. Bilbrough, 12st 7lbs; L. H. Bennett, 10st 10lbs (stroke); F. S. Titcomb, 7st 10lb (cox.)

*Guy's.*—W. C. Swayne, 10st 5lbs; A. Allport, 12st 10lbs; F. G. Swayne, 12st; A. Ellis Durham, 10st 8lbs (stroke); E. S. Worts, 8st (cox.)

*St. Bartholomew's.*—W. Elgee, 9st 10lb; D. R. Stephens, 12st; H. W. Stephens, 12st 10lb; G. T. Lloyd, 11st 1lb (stroke); J. Veale, 8st 3lb (cox.)

**Guy's Hospital Gazette,**
*JULY 7, 1888.*

## A CASE OF INTUSSUSCEPTION.

Charles H. G., aged 10 weeks. First seen on Monday, October 4th, complaining of vomiting and diarrhœa.

*History.*—The infant had been quite well until Thursday, September 30th, when it began to vomit and pass blood from the bowels. The mother called in a medical man who told her it was suffering from summer diarrhœa and prescribed some medicine.

The child passed a motion on the morning of Friday, October 1st, but since then has passed no fæces, the ejecta being slime and streaks of dark coloured blood. There has been a good deal of tenesmus.

The vomit consists of the milk taken as food, but not clotted and with no fæcal odour. The child retained a large proportion of the milk swallowed and took the breast well. No blood vomited. The vomiting seemed to be increased by movement.

*Present condition.*—The child was well nourished and shewed no sign of illness; the eyes were not altered in expression and there was apparently no pain. Temperature 99°.

Abdomen much swollen and tympanitic, and when pressed the child cried.

On the napkin were streaks of blood and mucus, but no fæces.

℞ Tr. opii. ♏ ½, liq. bismuth. et ammon. cit. ♏ x, aq. anethi. ad ʒ i., 2ndis horis.

Warm flannels to be applied to abdomen.

Next day (October 5th) the mother said the child was much better, and it certainly appeared so.

The face was placid, vomiting not so severe, and it took the breast well.

It had passed very little blood but no fæces. It had slept fairly well.

October 6th. A very evident change for the worse. Expression of child's face altered considerably; it was pale, hollow-eyed, and looked as if it were in pain. Vomiting of green material persistent, but no fæculent odour. Temperature 102°.

On passing finger into the rectum a hard mass like the end of a sausage was felt about 3 inches up.

Chloroform was administered, and the mass in the rectum was felt to have a transverse groove at the end like the os uteri after delivery. The finger could be passed round behind the mass but not in front of it.

Inflation with air was then tried by means of a Higginson's syringe with vaginal tube, which was passed up about 4 inches. A lot of air escaped at the side of the tube, the mass was found to have receded a little but would go no farther.

Soap and water was then injected through the same apparatus, and, as it seemed to pass in very well, hopes were entertained that the inverted bowel was returning. About 1½ pints were injected, but a good quantity returned by the side of the tube. On taking the tube out the mass was still felt, although higher up. The abdomen had become more distended. The vomit of the infant was now fæculent, and none of the remainder of the fluid returned from the rectum.

The child died four hours after.

*Post Mortem Examination.*—On passing finger into rectum a rent was felt on the posterior wall just opposite the lower end of the mass, and the sacrum could be distinctly felt. Only the abdominal cavity was examined. Large amount of gas or air in peritoneal cavity and also about a quarter of a pint of soap and water.

Small intestines distended and full of gas and green fæculent material.

On pulling intestines to one side, the transverse and descending colon and rectum could be seen

extending across the back in their normal position, but much distended and full of hard contents. Opposite the gall bladder and at the upper part of the abdominal cavity, and nearly in the middle line but slightly to right, were four pieces of intestine converging to one spot, where they all appeared to enter the inverted piece of colon. On dissection, however, two of these pieces of convergent intestine were found to be duodenum, which, by means of the meso-colon, had been merely drawn into the aperture. The cæcum and ascending colon were both inside the transverse colon. The end nearest the anus consisted of the cæcum and cæcal appendage, which was of the size of a large quill and very œdematous.

The whole inverted mass was twisted round on its long axis.

No amount of force short of lacerating the tissues could make the inverted mass return. It was made up simply of œdematous colon and cæcum, the walls of which were quite $\frac{1}{4}$ inch thick, forming together a mass like a sausage. No part was gangrenous, nor was there any well-marked peritonitis.

*Remarks*—Such a case as this brings no credit to any one concerned in it. It teaches a serious lesson, from which those immediately concerned cannot fail to profit; but my object in publishing it is, that others may take warning.

It presented many misleading features, and to one in busy, general practice, offered an easy rock on which to wreck oneself.

Firstly, there was the fact that it had been treated by another medical man as summer diarrhœa, which was prevalent at the time. My suspicions were, however, raised at first by the tympanites present; this eventually prevented my feeling any tumour through the abdominal wall, one of the most evident signs of intussusception.

The mildness of the symptoms, and their improvement the next day, and the way in which the child took the breast, seemed to negative any such serious condition as intussusception. The illness lasted six days, and would probably have lasted longer if no injection had been given. When the mass was felt in the rectum, the diagnosis was of course evident.

It appeared to me that nothing could have reduced the mass; in fact, it was physically impossible to return the thickened intestine through the aperture at the other end.

The only method of treatment likely to prolong life would have been enterectomy; but I very much doubt its utility in a child of ten weeks old.

The only way to treat these cases successfully by inflation, and such like, is to diagnose them early, before any considerable œdema of the inverted part has taken place; and I may mention, that with the light of this case before me, I was able to save another child by timely inflation.

## Green Extracts.

### RESEARCHES ON THE PHYSIOLOGY OF THE BLOOD.

By Dr. L. C. WOOLDRIDGE.

*(Continued.)*

#### THE PROCESS OF COAGULATION.

My experiments have shown that the clotting of the plasma is the result of the interaction of two bodies. These bodies are either compounds or mixtures of proteid substances and lecithin, and the latter substance seems to be the essential factor. It is proposed to call these two precursors of fibrin A. and B. fibrinogen. In determining the properties of these two bodies, there are great difficulties to contend with. It is easy enough indeed to separate them in various ways from the plasma. In the process of separation, however, they undergo slight changes, so that it becomes necessary to deduce their properties from the behaviour of a plasma, in which both substances are present.

A. Fibrinogen.

This is the body which is precipitated from peptone-plasma under the influence of cold. It forms only a small fraction of the coagulable constituents of the plasma. Slight cooling of the plasma suffices to precipitate some of this, but for its complete separation long standing in ice is necessary. When freshly pre-

cipitated it is soluble in 4% salt solution and dilute alkalies, as well as in warm plasma. After standing some time it is no longer soluble in warmed plasma, but only swells up, and, if separated by means of the centrifuge, it appears as a thin layer, much like fibrin. This layer is hardly or not at all soluble in 4% salt solution, and is very sparingly soluble in weak alkalies. It is to outward appearances nearly identical with fibrin, being, however, of a more mucous consistency. After pressing it between filter paper, it forms a little lump which is not to be distinguished from fibrin, save that it is almost entirely dissolved in a 0·2% solution of HCl. The microscopical appearance of this substance is very interesting. Soon after formation the precipitate consists of small round plates which hang together in groups. On warming they melt together to form larger plates, which in form are very similar to red blood corpuscles, though, of course, they are colourless. After standing for some time these plates break down into granular masses.

It is a question whether this body is to be regarded as a precipitate from the plasma, or as a form-element of the blood. If we assume the latter, we must ascribe to these form-elements the peculiarity of only appearing in the cold, while on warming they are either dissolved or swell up so as to become invisible.

It might also be thought that part of the substance was already present in the warm plasma, but was precipitated together with the corpuscles by the centrifuge. Of the formed elements of the blood that have been described it is most like the "*blut plättchen.*" Yet it is difficult to come to a decision, as under this name many different kinds of substances are understood, so that it is not possible to say whether all observers had to do with the same structures. *A. fibrinogen* may be precipitated not only by means of cold, but also by addition of $MgSO_4$. Exactly so much of saturated solution is added to the peptone plasma as not to produce any *immediate* precipitation. Generally, we can add one volume $MgSo_4$, to four volumes of plasma. After standing for a short time at ordinary temperatures a precipitate is produced which, at first, is resoluble in dilute salt solution, but loses its solubility after it has been separated for some time. It reacts in the same way with dilute alkalies. It shows all the properties of the precipitate which is produced by cold. The *A. fibrinogen* is the substance which in consequence of its great instability imparts to the plasma the property of "spontaneous coagulability." Peptone plasma, or 4% salt sol. plasma, is coagulated by the means already mentioned (influence of $Co_2$, dilution with $H_2O$, filtration through a clay cell), only when it contains this substance.

If, on the other hand, the A. fibrinogen be removed by cooling or addition of $MgSO_4$, the addition of a real fibrin-factor is required for the production of fibrin, as we shall describe later. Fibrin ferment has *no* effect on A. fibrinogen. If fresh peptone plasma is treated with ferment no clotting takes place, and on cooling, the precipitate of A. fibrinogen is thrown down in the usual way. On the other hand, fresh peptone plasma clots with lymph corpuscles. In whatever manner, however, peptone or salt plasma be made to clot, the A. fibrinogen disappears each time in the process, so that there can be no doubt of the participation of this substance in the process.

### B. FIBRINOGEN.

If the A. fibrinogen is separated by cooling or by addition of $MgSO_4$, the plasma must still contain in all cases plenty of substances capable of giving rise to fibrin, for it is possible, by proceeding according to Hammarsten's method, to get from the plasma a large quantity of a substance, which is in all points identical with the classical fibrinogen of Schmidt and Hammarsten. But the plasma itself shows properties which differ entirely from a solution of the fibrinogen of Hammarsten. The plasma clots very easily with lymph corpuscles, and after this clotting no more fibrinogen can be extracted from the plasma. The plasma clots neither with fibrin ferment nor with serum. Hammarsten's fibrinogen, on the contrary, clots with the utmost ease with ferment or serum, and will not clot on the addition of leucocytes obtained from lymph glands. Thus we see that Hammarsten's fibrinogen cannot exist as such in the plasma, but must be regarded more as a product of some chemical change. This view is supported by the following experiments:—

If to plasma, which is free from fibrinogen, we add sodium chloride to about half its point of saturation, a finely-flocculent precipitate (1) is produced, which when collected and pressed between filter paper is easily soluble in dilute salt solution. A solution of precipitate (1) clots either with ferment or with leucocytes. If the solution is precipated again by addition of salt, we get a precipitate (2) which is much coarser and more like fibrine. It is also much more slowly dissolved by dilute salt solution than precipitate (1). The solution of precipitate (2) clots only with ferment, and not at all with leucocytes.

Thus we see that this fibrinogen of Hammarsten has a forerunner or "mother substance" in plasma, which possesses different properties, and this substance I call B. fibrinogen. Experiment shows further, that the change takes place by a transition stage [solution of precipitate (1)], which shows properties midway between the mother substance and Hammarsten's fibrinogen. How exceeding unstable the constitution of this body is, is shown by the fact that we have only to dilute the precipitate (1), or even the plasma sufficiently, in order to bring about the change into the ordinary fibrinogen. Thus magnesium sulphate plasma, after dilution with ten times its bulk of water, will clot only with ferment and not with lymph cells.

Instead of the saturated salt solution we can also use a very dilute sulphuric acid (·6 p.c.) to precipitate the B. fibrinogen. This reaction is important, as it shows that the B. fibrinogen cannot be simple paraglobulin.

I have made special experiments, to convince myself that paraglobulin is dissolved by even a trace of this acid.

The diluted sulphuric acid, however, precipitates the A. fibrinogen from its solutions. In this test we have a means of estimating the richness of various forms of plasma in precursors of fibrin. For instance, to fresh peptone plasma we add the dilute acid till the reaction is strongly acid. By this means all the precursors of fibrin in the plasma are precipitated. If we collect and wash the precipitate and dissolve it in a small quantity of very dilute alkali, the solution clots spontaneously. If, on the contrary, we precipitate cooled plasma in the same manner, and dissolve the precipitate as before, the solution will now only clot on addition of ferment or leucocytes. The experiment can also be made with sodium chloride plasma or magnesium sulphate plasma. In the first case, we get a solution which is spontaneously coagulable, owing to the presence of the A. fibrinogen; in the second, in which this substance is absent, the solution will clot only on addition of ferment or leucocytes. Although it follows from these reactions that neither A. nor B. fibrinogen can be paraglobulin, yet both substances are proteids, as their reactions show. At the same time, they always contain considerable quantities of lecithin; whether in combination or as a mixture, I cannot at the present decide.

*(To be continued).*

## NOTES ON PATHOLOGY.

By Dr. R. E. Carrington.

*(Continued.)*

### LIVER.

*Relation of the large cirrhotic liver to the small.*—The common statement is that the liver is first large and then contracts down to the small. There is no evidence of this, either clinically or pathologically. Bright is reported to have observed a case, but the report shows that this was by no means definitely proved. A man died at Guy's with a hobnailed liver. He had been in the hospital ten years before, and the report shows that even then he had a small liver.

More cases of fatal cirrhosis have large livers than small; so that at all events the large liver is a very fatal condition.

The inference is that it is not proved that the large liver becomes small and contracted. It has been suggested that the character of the alcoholic drink determines whether the liver will be large or small—that beer drinkers get the large liver, and spirit drinkers the small. This is probably generally true, but there is not the least doubt that spirit drinkers sometimes die with the large liver (but they may drink both, with beer as the beginning).

Charcot's statement is that the *large cirrhotic* liver is independent of alcohol, and is due to the growth of connective tissue about the biliary ducts, so that he calls it *biliary cirrhosis.*

Wickham Legge has shown that ligature of the bile ducts will produce a certain amount of proliferation of the connective tissue in the portal canals. In men obstruction by gall stones is said to be followed by the same effect. This is denied by some (Goodhart), but all admit that obstruction of the duct by cancer will produce a large smooth cirrhotic liver.

But the chief feature of Charcot's description is the so-called "new duct formation," that is to say, the presence in the newly-formed connective tissue of certain double rows of nuclei. These are described by Charcot as occurring only in the large liver. He supposes them to be a vicarious but imperfect formation of liver tissue, and hence the name "hypertrophic cirrhosis." But now he must without doubt allow that these "duct formations" are met with in many other conditions—*e.g.*, acute yellow atrophy, tubercular liver, cancer of the liver, and even in small cirrhotic liver—so that their significance as characteristic of the large cirrhotic liver is lost.

In the normal liver the capillary ducts surround the lobule, and the biliary capillaries are found in the form of channels between the liver cells. The capillaries have no definite wall, but appear to be marked out by rows of nuclei.

So much to make clear the various alleged modes of origin of these "duct formations."

1. That they are *not* ducts; that they are produced by the new-formed connective tissue contracting down upon the rows of liver cells, and causing their atrophy. If two rows of liver cells happen to be included a duct formation is the result. (Hamilton.)

2. That they arise by a process of budding from the biliary ducts. (This is Charcot's.)

3. That they are original bile capillaries rendered unduly prominent by the atrophy of the liver cells. (Goodhart).

*Origin of the connective tissue.*—There is no doubt that some of it, if not the greatest proportion, arises by proliferation of the connective tissue of the portal canals (Glisson's capsule). But the view is strongly advocated by Hamilton that connective tissue is produced by conversion of the liver cells themselves. No doubt in sections of the cirrhotic liver cells may be found which appear to be lengthening into fibres, but it does not appear that this process is a very general one.

In cirrhosis the cells become—

1. Fatty.
2. Granular, atrophied, or full of
3. Bile pigment.

And there is not the least doubt but that in the large liver the tendency is for them to become fatty, and no doubt much of, if not all, the increased bulk is due to this cause.

*(To be continued.)*

## REST AND PAIN.

*(Continued.)*

In bringing to a conclusion this part of the subject, I must not omit to notice a disease in which pain is one of the chief symptoms, and which is one of the most obscure and difficult disorders we have to deal with—I refer to hysteria. To start with, the name is a bad one, presupposing as it does that uterine trouble is at the root of all hysteria. Sir James Paget's word is better, *neuro-mimesis*. The pain in this disorder may affect all parts of the body; but perhaps the most frequent is the so-called "clavus hystericus," or pain like a nail driven into some part of the head, usually just above one brow. It is often intermittent, and in this position might be mistaken for brow-ague. The next most common place is in the side below the mamma, usually the left, when it is known as a "stitch"!

In the case of joints, mistakes are easily made. Paget says, "If you get terrible pain in a joint immediately after some slight injury, always suspect neuro-mimesis, and you will seldom be wrong." Fallacies are possible, however, for he adds, "One of the most acute cases of hip disease I ever saw began with agonising pain on turning round."

The diagnosis of joint disease *early* is very important, and the signs, though many, may be masked by one severe symptom. Pain alone does not prove a joint is inflamed for example, especially if the local temperature be normal. The absence of flexion is one of the best signs of the absence of real disease.

Sir James Paget tells of a boy who had "horrible" grinding and burning pain in the knee—worse at night. He was twice cured by the cautery, and, on dying soon after of pulmonary tuberculosis, the knee and hip joints were quite normal. It seems plain that this disease is not a local but a general one. "All the processes of life, which in the healthy are unfelt, are sensible and often painfully so to the patient." The pain is said to be horrible and agonising; forcible language and striking simile are seldom wanting whereby the excessively severe nature of the suffering may be described.

How, then, are we to distinguish real pain from that of neuro-mimesis? The disease is commonest in young women "*with uteruses*," to use a colloquialism, or in over-worked prostrate young men. Close cross-examination usually elicits some inconsistency. The pain is intermittent, and above all very superficial. A grandly dressed young woman once came to Mr. Jacobson's out-patients, complaining of intense pain—agony she called it—in her right thigh. It was more acute at one time than at another; her temperature and that of her limb were normal; a tap with a finger was excruciating! I was told to blister the painful spot; and at intervals of a minute and a half painted about six layers of blistering fluid on one spot. The girl, however, in placing her finger on the agonising point, never once pointed to the same spot, but always wandered, sometimes as much as 8 inches from the one pointed out to Mr. Jacobson. There was no real disease, and one more blistering cured her!

The superficial position of the pain of hysteria is illustrated in spinal cases, when pressure, steady and strong, on the spines is painless, while tapping or mere touching is acutely painful.

The origin of these pains is doubtless Nervous. Post mortem appearances are negative; they occur in debility; they are variable and sudden in appearance and disappearance, and are cured by constitutional treatment.

They are probably dependent upon the defective nutrition of some large central organ like the brain. The nerves being prepared, some slight cause may start symptoms out of all proportion to the stimulus applied. The undoubted fact that the knee and hip are most frequently the points affected by this disease, is thus explained by Hilton. The uterus is supplied by offsets from the hypogastric plexus and by 3rd and 4th sacral nerves. Now the plexus also contains filaments from the lower lumbar nerves, from which the nerves supplying the hip and knee come. Treves says this theory is unsatisfactory, "Since the uterus has many of its nerves from the ovarian plexus, and the theory is based on the unwarrantable assumption that all hysterical disorders are associated with uterine diseases."

This criticism seems hardly fair; Mr. Hilton makes no such assumption. There is no doubt that most subjects of this disease are women. It is equally certain that uterine derangement most often causes the trouble, as proved by the successful treatment directed to the uterus. Paget says, the knee and hip are the joints usually affected. There is therefore some nervous connection, and Hilton's theory may be the correct solution of the problem—any way, it is the best as yet suggested.

Paget notices the frequency with which the pains of cancer are simulated, usually in the breast. "However severe and characteristic the pains," he says, "the diagnosis is clear. That is not cancer which you cannot feel. Cancer is a growth and not a pain; in fact, its earlier stages are not marked by excessive pain. Therefore, with much pain and nothing to the feel, there is probably *no* cancer."

As a rule, patients who are thus affected have seen or heard of cancer, and their minds dwell upon the horror of the disease and the despair of its end,—and who can wonder? The idea at last, constantly harped upon, becomes almost a sensation—as Shelley's Prometheus cries, when haunted by the furies,—

> "Whilst I behold such execrable shapes,
> Methinks I grow like what I contemplate,
> And laugh and stare in loathsome sympathy."

Mr. Durham tells of a young lady who came to him for "cancer of the breast." Her mother had had her breast excised for it, and had subsequently succumbed to it; and the girl was firmly convinced that her mother's

enemy was now to be hers. Mr. Durham, in his kindly way, assured her that the changes she had observed were not due to cancer, but to the fact that her breasts were rapidly undergoing the natural development due to approaching womanhood.

With regard to "surgically caused" pain, the inestimable boon of anæsthetics has made that a thing almost of the past. After all, a good deal depends upon the natural, kindly nature of the surgeon. Dr. Moxon observed at Guy's three kinds of dressers—the sympathetic, the apathetic, and the anti-pathetic dressers. Supposing an Irishman's molar to be the matter in hand: the sympathetic man thinks of conservative dentistry; the apathetic man will haul it out or leave it, he does not care which, so long as the patient won't bother any longer; the anti-pathetic wretch, "after seating Paddy in a chair, would wrench the Fenian head to and fro, drowning the enemy's yells with 'Don't make that noise, I'm not hurting you!!'" It is needless perhaps to remark, that only the first class of dressers can now be seen at Guy's!

*(To be continued.)*

## ON IMMUNITY FROM SMALL-POX.

By the Medical Superintendent of the Hospital Ships.

Mechanical irritation of the skin, such as that applied by rowing to the hands of an inexperienced boatman, or by prolonged walking to the feet of those unaccustomed to it, results in blisters. If the irritation is continued from day to day, fresh crops of blisters are produced for a time till at length the part ceases to manifest its irritability by vesiculation. It is protected: it has acquired "immunity." Tobacco smoking, too, if persevered with, fails to produce the toxic effects following its early use. The individual behaves differently towards that irritant, in consequence of continued exposure to it. It is this difference in the individual's behaviour that constitutes "immunity" and secures "protection." In time, the immunity is lost by discontinuance of the fumes or friction: the individual, if exposed again, may have a second attack. Foreign bodies embedded in the skin, as in tattooing, at first irritate (evidenced by papulation); ultimately, "the skin acquires its normal condition." The irritant remains, the tissue has ceased to be irritated by it. Ringworm grows under the surface and spreads marginally. As the growth advances, rings of papules, vesicles, and even pustules are formed. The plant remains in the central area, but the skin there does not inflame. The vesiculation is an effort to be rid of the guests. Pustulation signifies that the invading spores have slaughtered the defending leucocytes. The plant remains in the skin after the failure of these attempts to expel it, and its presence there is tolerated. The part is protected against, and has immunity from ringworm.

The spores of cow-pox applied to the injured surface of a child result in pustulation at the spot. From the periphery of this pustule, some form of irritant spreads over the skin. The effect of this irritant is to produce varying degrees of inflammation of the skin, and much tumefaction near the pock: as it advances over the body the manifestation becomes less and less. Whilst the central parts are recovering, crescents of papules mark the progress of the growth. In well-marked instances, the resemblance to ringworm strikes the unaided eye. Revaccination either results in its manifestation or else all degrees of it up to that of primary: dependent principally on the lapse of time. I would explain the temporary immunity by suggesting that the cow-pox and small-pox are local diseases in the same sense that ringworm is a local disease. That when planted on, it spreads all over the skin: that the manifestations of irritation cease just as they do in the central area of ringworm, or around the pigment in a tattoo mark. When the plant dies, the host is in the condition of the smoker who has given up smoking, or the rowing man who has ceased rowing. They are all liable to second attacks, possibly modified.

Cow-pox and small-pox are different diseases, but they produce similar manifestations on man, and they protect for a time each from the other as well as from itself. How long the protection lasts I do not know. It is sometimes very short. Rather more than three-fourths of the patients treated in the Hospitals of the Metropolitan Asylums Board had been vaccinated. Of the vaccinated, eighty-eight in a thousand died. Small-pox does affect children within a year of vaccination. Small-pox does cause death after successful vaccination. Small-pox has attacked a woman aged 33, who said she had been successfully vaccinated in infancy and successfully revaccinated at the ages of 14 and 28. The eruption was not modified. Second attacks of small-pox do occur after long intervals. Small-pox occurs after inoculations with small-pox. Cow-pox inoculations take after small-pox. Revaccinations at intervals of two years succeed. Every person exposed to small-pox infection should be revaccinated unless such person has been successfully vaccinated within, as an extreme limit, two years. The main factor in spreading small-pox is the omission to revaccinate the unaffected inmates of the house in which small-pox breaks out. Immunity against small-pox is not procured by many vaccine scars of long standing. No reliance should be placed on foveation and extent, if the interval since successful vaccination exceeds two years. Recent successful vaccination practically protects from small-pox. The production of one pock is sufficient. In a large number of persons who have joined the staff of this hospital, we have relied on revaccination at only one site; in all of them the protection against small-pox has been complete. I believe it will ultimately be demonstrated that the protection afforded by the production of one pock is as ample as that resulting from many: that in the primary vaccination of children one spot will be deemed sufficient.

# Passim.

ONCE more the Guy's Cricket Club has won the United Hospitals' Cricket Challenge Cup. This is the 5th successive year in which we have been *premier* Hospital. We heartily congratulate all who contributed to the successful result.

THE Challenge Cup for this year was a new one—in many respects superior to the old cup. We are therefore its *first* holders. The old cup is now the absolute possession of the Hospital, and was, last Wednesday, presented to the the Treasurer and Governors by Mr. Durham, the President of the Guy's Cricket Club. May the new cup also soon become ours!

LAST Wednesday was the Annual Prize Distribution day. The medals and prizes were distributed by H. Cosmo Bonsor, Esq., M.P. A full account will be found in another column.

WE believe that the Biennial Dinner of the Past and Present Students of Guy's Hospital was held at the Holborn Restaurant the same evening, but we have had no official notification of it.

THE Treasurer's Gold Medals for Clinical Medicine and Clinical Surgery have been awarded to Mr. E. H. Starling and Mr. R. D. Mothersole respectively. To the latter medal also Mr. Starling *proxime accessit.*

THE Mackenzie Bacon Prize for Nervous Diseases has been won by Mr. A. H. Williams.

THE September Appointments list opened on Monday last. All applications have to be made by the 14th inst. We notice that there are vacancies for 4 Resident Obstetric Assistants, the extra appointment—for August and September—being caused by the resignation of Mr. Poolman, who has been appointed House Surgeon.

SATURDAY evening, the 30th ult., was the occasion of a great gathering of present and past residents and Dressers and their friends—about 70 in number—in "The Rooms." It was one of the two big going-off nights of the year. The retiring residents were the Senior H.S., Mr. Halstead; the Senior H.P., Mr. Fisher; the Senior Charity, Mr. Black; and six Dressers, Messrs. Vincent, Risdon, Parkin, Gardner, Starling, and Sawyer. Their numerous friends met to bid them good-bye, or to wish them success in future appointments. Several songs and recitations were given, and "He's a jolly good fellow" was sung vigorously as each toast was proposed.

Dr. WOOLDRIDGE and Dr. PERRY are each taking charge of half the beds in the Clinical Wards during the next three months.

WE were very sorry to notice the miserably poor results achieved by Guy's at the United Hospitals' Sports.

## PRESENTATION DAY.

Wednesday last, the 4th inst., was the day appointed for our annual distribution of prizes, and great were the preparations made for it by the Medical School. A large number of invitations had been issued to the Governors, the Staff, the Students and their friends; and a goodly company was expected. Unfortunately the weather did not turn out favourable, but proved unsettled and showery; and probably this kept many away who would otherwise have been present. The attendance, nevertheless, was quite up to, if not beyond, our expectations.

A good-sized marquee had been put up in the Park for refreshments, but owing to the state of the weather this was not called into requisition, the needs of the visitors being supplied in the Students' Club by tea, coffee, ices, strawberries,

&c. The Park was also decorated by flower-stands placed at intervals, and the fountain was turned on. To add to the life of the gathering, the band of the Scots Guards was present in the grounds, by the kind permission of Colonel Stracey, and conducted by Mr. E. Holland, gave a most entertaining selection of pieces.

The Wards (as far as practicable), Museums, School Buildings, Chapel and Students' Club were all open for the inspection of visitors from 3 p.m. till 5·30 p.m., and a large number availed themselves of the opportunity of seeing the various parts of the Hospital.

It was announced that at 4 p.m. the prizes for the year would be distributed by H. Cosmo Bonsor, Esq., M.P., in the Council Room, and by that hour the room (which, by the way, is ridiculously small for the purpose) was quite full. The meeting commenced by Dr. Taylor reading the Report for the past year. He commenced by referring to the additional teaching accommodation that had been provided during the year, in the form of two newly adapted Physiological Laboratories and a new room built for Pathological research. He then mentioned the completion and full working order of the Students' Club, consisting of dining room, reading room, smoking room, and gymnasium. Dr. Taylor then spoke of the Proposed Residential College, which he hoped to see completed within "no great distance of time." The site had been liberally offered by the Governors, the money required for its erection—£20,000—had all been subscribed, and the architect's plans had been approved. Passing on, he next touchingly spoke of the memorial tablet to the late Dr. Moxon, which has been erected in the Museum opposite to that of Dr. Fagge. In conclusion, he referred to the continued successes of Guy's men at the Universities and Public "Service" Examinations, and enumerated the competitions in our own Hospital for prizes and scholarships, making special mention of a new medal and scholarship founded in honour of the late Dr. Golding-Bird.

Mr. Cosmo Bonsor then distributed the various medals and prizes to the successful students as follows :—

*The Treasurer's Gold Medal for Clinical Medicine.*—Ernest Henry Starling, Bombay.

*The Treasurer's Gold Medal for Clinical Surgery.*—Robert Devereux Mothersole, Colchester. *Proxime accessit*—Ernest Henry Starling, Bombay.

*Gurney Hoare Prize for Clinical Study.*—George Herbert Pennell, Exeter.

*Beaney Prize for Pathology.*—Ernest Henry Starling, Bombay.

*Mackenzie Bacon Prize for Nervous Diseases.*—Arthur Henry Williams, Hayton, Yorks.

*Golding Bird Medal and Prize.*—Robert Devereux Mothersole, Colchester.

*Michael Harris Prize for Anatomy.*—John Henry Bryant, Ilminster.

*Fourth Year's Students.*—Alfred Parkin, Hightown, Yorkshire, first prize, £25. Robert Devereux Mothersole, Colchester, second prize, £10.

*Third Year's Students.*—Frederick William Hall, Sydney, N.S.W., £25.

*Second Year's Students, 1887.*—Frederick William Hall, Sydney, N.S.W., £17 10s.; John Fawcett, Westgate-on-Sea, £17 10s.—equal.

*First Year's Students, 1887.*—John Henry Bryant, Ilminster, first prize, £50; Bertram Whewell Hogarth, Morecambe, second prize, £25; Arthur Stanley Wohlmann, Hereford, Certificate; William Gusterson Rogers, Kimberley, South Africa, Certificate.

*Open Scholarship in Arts.*—Richard Llewhellen Wason, Bath.

*Open Scholarship in Science.*—Alfred Theodore Rake, Fordingbridge.

After the prizes had all been given away, another very interesting ceremony took place, which has never been witnessed before at this or any other Hospital—the presentation by Mr. Durham (as President of the Guy's Cricket Club) to the Treasurer and Governors, of the United Hospitals' Cricket Challenge Cup. This, having been won for *four* consecutive years by our team, has now become the absolute property of the Hospital.

The Treasurer, in reply, said it gave him much pleasure to find that our students acquit themselves creditably, not only in their professional, but also in their athletic competitions. Before concluding, he proposed a vote of thanks

to Mr. Cosmo Bonsor for presiding. This was ably and interestingly supported by Dr. Pavy and Mr. Durham, and carried with acclamation.

Mr. Bonsor, in acknowledging the thanks, said that he owed more to the Hospital than the Hospital did to him; that it gave him much pleasure to do anything to help on the work of the Hospital. He congratulated the successful students, and consoled the unsuccessful ones by showing that many a man, who had been the recipient of a wooden spoon or other sign of inferiority in a competitive examination, had yet burst out into great success in his future career. In concluding, he could not help referring to the change that had taken place in the surgical staff by the retirement of Mr. Bryant, whose assistance, however, we were not to lose, as he was yet Consulting Surgeon to the Hospital.

After the meeting had concluded, the visitors spent the rest of the afternoon in visiting the wards, &c., and in the Club Room, where, as mentioned above, refreshments were provided. And thus another annual distribution day passed off, apparently satisfactorily to all concerned.

## MALINGERERS.

Amongst the most difficult cases for diagnosis which present themselves in the surgery, are patients who are only in want of a little relaxation combined with a comfortable lodging. In order to obtain their object, they generally develop most extraordinary symptoms which do not conform with any known disease, as some of the following cases show. They are also often characteristic in the sudden subsidence of their symptoms when one does not take them in, and the ready command of vituperation which they display on these occasions.

The other day a man came complaining of sudden illness accompanied by continuous jerking of the right hand. He had previously been in the Hospital for something else, and wished to be admitted again. The tremors were rhythmical, and continued, whether the arm was at rest or in use. In order to settle whether they were involuntary, he was asked to imitate the movements with the opposite hand and foot. We had great difficulty in getting him to attempt this, as he seemed to be doubtful of the result. At last, after a good deal of swearing and indignant denial of shamming, although no one had accused him, he attempted the rather complicated exercise. As soon as he did so, the movements of the hand stopped at intervals when his attention was taken up by the other hand.—"Outside!"

### THE YORPER.

When Dr. Halstead was H.P., Mrs. Keogh came to him in the Medical Wards one evening and asked him to come and see a man in the Surgery who was making a dreadful noise. She wouldn't commit herself by admitting that he was bad; she only said that she had never heard anything like it before. Halstead could hear him quite plainly as soon as he got out of the Medical building. On reaching the Surgery he found the man surrounded by an astonished group of onlookers. He was sitting on the chair with his eyes nearly starting out of his head, and perspiration rolling down his face. At intervals of about two seconds he opened his mouth with a convulsive gasp to its fullest extent, and gave a terrific inspiratory whoop, which can only feebly be represented by the word "Yorp."

The first thing to raise Halstead's suspicion was, that he had given two distinct versions of his family history. One was that his father and mother and one sister had all been afflicted in the same way and had died in a similar attack; the other was, that they had died in lingering consumption. Another suspicious circumstance was, that he watched Halstead out of the corners of his eyes as if to see how he was taking it in. Halstead had, however, by this time recovered his equanimity and suggested the battery. This, however, not falling in with the man's ideas, he said with a lofty air of wisdom, engendered by a long experience of the disease and various unsuccessful modes of treatment, that "that didn't touch it—they'd tried it heaps of times, and it never did him no good"; there was a medicine, however, which he believed they only kept in the wards, and which was the only thing that had any effect. Halstead said he thought he knew what it was, retired to the medicine cupboard, and presently appeared with a mixture containing copaiba, valerian, sp. ammon: fœtid: and terebene. The man swallowed half of it, and said that he recognised it as a medicine which had been previously prescribed with no effect, repeating that the real medicine could only be obtained in the wards.

The trap into which he finally fell was counting up to twenty, which he did quite successfully, beginning to "yorp" as soon as the word twenty had left his mouth. Halstead told him he was sorry he couldn't take him in, but recommended him to go home to bed and say the multiplication table over till he went to sleep. After this final decision he seemed to obtain considerable relief by blaspheming the Hospital and its officials. A few weeks after this Halstead was dining with one of the residents at the 'London,' who told him that his colleague had had a most extraordinary case under his care; it was not certain whether it was clonic spasm of the diaphragm or of central origin, but at any rate the man looked as if he were going to die the next minute. On being asked whether this man had red hair and made

the most diabolical row you could imagine, he said that was so; in fact, that he continued making this noise for 48 hours after admission, keeping the patients awake all the time, after which they moved him to a separate compartment, which he apparently didn't find to his taste, as he left next day of his own accord.

---

A short time ago my attention was called by the H.S. in the Surgery to a young man who seemed to be suffering from pneumonia. Well, I thought I remembered seeing him a few minutes before in passing through to my breakfast, when he seemed to be breathing quite quietly but looked rather pale. Now, he was breathing 60 to the minute and looking rather flushed. He, with some difficulty, gasped out a history of a rigor that morning, with pain in the side, which hurt him when he coughed or breathed deeply. He had no signs in his chest; his skin was quite cool; his temp. 97·6, his pulse 75, and his tongue quite moist. When asked to hold his breath whilst his heart sounds were being examined, he could do so for a long time. I was talking to the H.S. about him, and was just about to send Phyllis for the Clinicals to see whether they would fall into the trap, when he burst out of the private room swearing, and putting his coat on, declared he was not going to be examined by sniggering fools, and went out at the front gate. The patient, who was in the private room with him waiting to be strapped, on being asked whether he had noticed anything extraordinary about him, said not, except that he was took worse with his breathing when I came in.

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Mr. Caldecott tells us that his grandfather once had a patient at the Colchester Hospital who was prevented from following his employment owing to spasmodic closure of the right hand. He couldn't open his hand himself, but the resistance could be overcome by the surgeon. However, as soon as the straightened fingers were let go, they became spasmodically fixed on the palm again. One day the Surgeon determined to get rid of him, so he told a nurse to heat a large metallic sound in the next room, and to bring it to him when he asked for it. She was to heat it in the fire, but not to make it red hot, so that the patient might imagine it cold. He then went to the patient and told him that he had been reading his case up, and thought he had hit on a mode of cure which was simply to grasp something in the hand all day. On the man agreeing to try the plan, he forced his hand open and asked the nurse to bring a large sound. Taking it from her, he held it close to the man's palm at the same time as he liberated the patient's fingers. These flew back and clenched as before, but only for an instant. The next moment he dropped the sound, rose with a yell, and, extending his fingers, displayed with great indignation a double row of big blisters, asking, in flowery language, if that was the way he was to be treated. The Surgeon rejoined with a mild smile, that a few blisters could not be much to pay for the freedom with which he could now open his hand. He further recommended the sister to give the man his clothes, so that he might immediately go out.

F. HEATHERLEY.

# Correspondence.

*To the Editor of* GUY'S HOSPITAL GAZETTE.

## LARGE "SPINA BIFIDA" AS A PRESENTATION.

DEAR SIR,—The following case may be of interest to some of your readers. On June the 25th I was called to attend Mrs. K— in her second labour. On my arrival I was told that the pains had been slight but regular for some six hours, but there had been no "show." During vaginal examination I felt a long conical bag of membranes protruding through the os uteri, which was well dilated, but could not detect any presentation.

The slight manipulation employed ruptured the bag, and a copious discharge of very dark coloured liquor amnii took place.

I then examined further rather expecting, from the shape of the bag, to find a footling or shoulder presentation, but could feel nothing, except what, at the time, I imagined to be a second bag of membranes. While undecided whether or not to rupture this also, I felt some cord-like ridges on the surface of the bag, and so determined not to rupture it, but await further development of the case.

After an interval of some twenty minutes, during which the pains were regular and steady, I slowly introduced the left hand well oiled into the vagina and found that the sac was advancing, being now partly through the os. I could feel no presentation in the sac, which was full of fluid, so tried to pass my hand by the side of it into the uterus. This was not possible without the employment of more force than I cared to use, so I withdrew my hand, knowing, if possible, less about the case than ever, not being able to reconcile it with anything I had ever met or read of.

Gradually the presenting part of the sac came to the vulva, and, in the course of two or three pains, bulged through slowly, till at last there was a tense sac considerably larger than a fœtal head outside. At this moment it burst, and, on passing the finger into the vagina, a breech could be felt, and the existence of a large spina bifida made certain. The body and head were speedily delivered, and the child commenced to respire, though very feebly at first.

Carbolic oil was used as a dressing over the collapsed sac, which had a very broad base and occupied the whole of the lumbo-sacral region.

At present, three days after birth, the sac is slowly filling again; there is well-marked talipes varus on both sides, and paralysis of the lower limbs, while the anterior and posterior fontanelles are continuous. There have been no convulsions as yet.

The fact of the sac being so large as to entirely fill the pelvis and prevent any other part being felt, constituted the difficulty I had as to diagnosis.—I am, yours, &c.,

A. H. A.

# Sport.

## UNITED HOSPITALS' SPORTS.

The United Hospitals' Sports were held on Tuesday, 3rd July, 1888, at Stamford Bridge, in very showery weather. Very few Guy's men were present.

The several heats of the 100 YARDS were won by A. C. Davies (Univ.), R. G. Hogarth (Bart's), C. E. Oakeley (George's), G. L. Hanwell (Thomas's). F. Christie (Thomas's) also ran in the Final, being second in the fastest Trial Heat. In the Final Heat of the 100 Yards, Hanwell was first off the mark, and got at least 2 yards start of the rest, and was never caught. This shows the value of practising starting for sprint races. Hogarth, second. Time, 10½ secs.

In the HALF MILE, Kent-Hughes (holder of the Cup) won as he liked, in 2 min. 2½ secs.; Willock (Thomas's), second. It may not be known by all, that Kent-Hughes ran second to Le Maitre in the Half Mile, at the Amateur Championship Sports, last Saturday.

W. G. West (Bart's) was first, and S. H. Birt (London), second, in PUTTING THE SHOT. Distances, 34ft. 6in. and 33ft. 10in. W. G. Mitchell was fourth, with a put of 33ft. 3in. It is only fair to Mitchell to say that one of the judges reminded him it was his last put, and just as he was about to put, another judge made the same remark, which naturally baulked him.

The 120 YARDS HURDLE should have gone to Mitchell again this year, but owing to his not having trained, he refused to start. This would have been a certain second, and probably a first, if he had *only* started. As it was, Kent (Bart's) was first, and Kent-Hughes (Bart's) second. Time, 17⅘ secs.

In the LONG JUMP again Mitchell showed that he had not trained, as at his second attempt he took off 2 feet this side of the line and at his third a foot. The distance jumped at his second attempt would have won this, if he had taken off from the proper mark. The value of training for the long jump is in order to toe the mark when you jump and to get into your proper step. Hogarth (Bart's), 1; Badger (Bart's), 2. Distance, 19ft 11in.

THROWING THE HAMMER was won by Brooks (Thomas's), 78ft. 5in.; Leyden (Mary's), 2; Newington (Bart's), 3. Mitchell found the handle too long. If he had used the hammer a week or two beforehand he would have overcome this difficulty.

220 YARDS.—A splendid race. Christie (Thomas's), 1; Hogarth (Bart's), 2; Oakeley (George's), 3. Time, 23 2-5th sec. The second man was gaining on Christie during every step of the last ten yards, and he was only beaten by a foot.

ONE MILE.—Won easily by Kent Hughes (Bart's); Quennell (Bart's) being second. Time (not at all good for Kent Hughes), 4min. 42 2-5th secs.

The HIGH JUMP had to be finished on the path, and Davies (Bart's), 5ft 5½in, was first; Langton (Mary's), 5ft 4½in, second.

QUARTER MILE.– Won by the holder of the Cup, R. N. Martin (Bart's); Hanwell (Thomas's), second. Time, 53 4-5th secs.

OPEN (440 YARDS).—C. S. Woodd (Bart's), 25 yds, 1; A. T. Harrison (Guy's), 15 yds, 2; Harris-Liston (Univ.), 5 yds, 3. Time, 52 3-5th secs.

THREE MILES CHALLENGE CUP.—Quennell (Bart's), 1; Wilmot (Guy's), 2; O'Brien (Mary's), 3. Wilmot was 25 yards behind the winner, and his time was 16 min. 15 secs. Wilmot ran very well, but he should not have continued to pass and allow Kent Hughes to repass him. It would have been better to go right ahead of him or stay just behind him. He must be congratulated for having trained and being the only man who did anything for Guy's.

H. A. Smith and Eastment never appeared at the sports, although both were elected to run in two of the races.

Mrs. Pickering Pick (wife of the President), gave away the prizes.

## CRICKET.

### GUY'S II. v. CAMBERWELL GRAMMAR SCHOOL.

Played at Dulwich, on June 6th; we were defeated by 28 runs. Steele and Wilks were the only members of our Eleven to collar the bowling, the latter hitting hard for 22 not out. Score:—

GUY'S HOSPITAL.

| | |
|---|---|
| W. K. Steel, run out | 16 |
| T. H. B. Yorath, b Docker | 0 |
| E. J. Budge, c Grossmith, b Wright | 6 |
| V. H. Ellis, b Docker | 0 |
| E. S. Tuck, l b w, b Docker | 0 |
| W. S. S. Cobb, b. Docker | 0 |
| C. Pratt, c Yeoman, b Wright | 4 |
| H. L. E. Wilks, not out | 22 |
| H. W. Webber, b Docker | 0 |
| R. H. Allport (sub) b Wright | 1 |
| F. A. Odell (sub) c Grossmith, b Docker | 2 |
| Extras | 7 |
| Total | 58 |

CAMBERWELL GRAMMAR SCHOOL.

| | |
|---|---|
| Mr. F. Rice-Oxley, c Pratt, b Tuck | 18 |
| W. J. Brown, rnn out | 3 |
| E. C. Rolfe, c and b Tuck | 12 |
| Mr. F. C. Docker, c Tuck, b Yorath | 18 |
| F. Odell, c Tuck, b Yorath | 18 |
| H. F. Plumpton, c Ellis, b Tuck | 0 |
| A. N. Wright, b Yorath | 2 |
| A. A. Yeoman, b Yorath | 0 |
| F. E. Yeoman, l b w, b Yorath | 0 |
| W. S. Grossmith, b Yorath | 1 |
| A. W. Blashfield, not out | 5 |
| Extras | 9 |
| Total | 86 |

## GUY'S II. v. DULWICH COLLEGE II.

Played at Dulwich College, on Saturday, June 16th. We were again in the minority, due largely to our want of bowling, but more especially to very bad fielding. Score:—

DULWICH COLLEGE.

| | |
|---|---|
| F. G. Pratt, run out | 33 |
| W. Henderson, c Henderson, b Culmer | 0 |
| E. G. Fleming, b Henderson | 0 |
| E. R. Edwards, c & b Culmer | 1 |
| T. S. M. Ross, l b w, b Wilks | 23 |
| A. B. Voules, b Henderson | 35 |
| E. F. Sheppy, c Jewell, b Webber | 23 |
| G. F. S. Christie, b Webber | 11 |
| A. H. E. Vaugulin, c Pratt, b Steele | 12 |
| A. R. H. Skey, b Webber | 1 |
| S. A. Northcote, not out | 0 |
| Extras | 15 |
| Total | 155 |

GUY'S HOSPITAL.

| | |
|---|---|
| W. K. Steele, c Ross, b Northcote | 10 |
| E. J. Budge, c Ross, b Edwards | 5 |
| T. G. Stevens, b Northcote | 6 |
| W. H. Jewell, b Edwards | 2 |
| E. S. Tuck, c Henderson, b Edwards | 4 |
| H. Wilks, b Northcote | 3 |
| J. W. Culmer, b Northcote | 0 |
| H, W. Webber, not out | 12 |
| R. Henderson, b Edwards | 5 |
| C. Pratt, run out | 3 |
| Extras | 13 |
| Total | 63 |

## GUY'S v. BICKLEY.

Played at Bickley on June 6th, and resulted in a thorough "walk over" for Bickley. Guy's, as usual, could not raise a team, and the match was only able to be played by the timely assistance of three men from University and two substitutes from Bickley. Guy's fielding was slack in the extreme, some twenty catches being dropped in the field. We got 5 of our opponents wickets for 85 runs, and would certainly have reduced their total to considerably under 200, had the chances given us been accepted. Our men were naturally done up on going in to bat, so the less said about the day's cricket the better. A word of praise, however, is due to Roberts for his splendid innings of 46 not out, made at a critical moment. Tonge's bowling was very destructive. Scores:—

BICKLEY.

| | |
|---|---|
| J. Hilber, b Rygate | 34 |
| C. Simmons, c Busteed, b W. G. Mitchell | 0 |
| J. W. Tonge, c and b Rygate | 85 |
| Rev. A. T. Scott, l b w, b W. G. Mitchell | 4 |
| B. H. Latter, b Ringrose | 8 |
| G. G. Barker, l b w, b Owen | 181 |
| W. B. Friend, c Pratt, b Tufnell | 45 |
| H. Herens, not out | 55 |
| O. Evans, b Tufnell | 6 |
| E. F. McKewan, c Owen, b Tufnell | 4 |
| Extras | 20 |
| Total | 443 |

GUY'S HOSPITAL.

| | |
|---|---|
| C. Tufnell, c Parr, b Tonge | 0 |
| — Ward, b Parr | 2 |
| J. H. Roberts, not out | 46 |
| W. G. Mitchell, b Parr | 0 |
| H. P. Job, b Tonge | 0 |
| H. J. Ringrose, b Tonge | 9 |
| J. H. Busteed, b Tonge | 4 |
| H. Owen, b Tonge | 0 |
| H. B. Rygate, b Tonge | 0 |
| G. M. Pratt, c Friend, b Tonge | 4 |
| R. Henderson, b Tonge | 2 |
| Extras | 11 |
| Total | 78 |

## GUY'S v. STREATHAM.

Played on June 9th, at Streatham, and ended very luckily for the Hospital in a draw, owing to rain stopping play. Guy's turned down four short; men, as usual, scratching right and left, three doing so the night before, and two at 10.30 next morning. Being unable to obtain any substitutes on the ground, our men had to go in with seven men, and were all out for 28. Streatham making 34 for 2 wickets, when rain stopped play. Scores:—

GUY'S HOSPITAL.

| | |
|---|---|
| T. S. Jackson, c Harper, b W. S. Trollope | 3 |
| H. B. Yorath, c Harper, b W. S. Trollope | 1 |
| E. Jewell, b W. S. Trollope | 6 |
| J. H. Roberts, c Bird, b W. S. Trollope | 4 |
| H. B. Rygate, b C. L. Morgan | 9 |
| S. Sharman, b C. L. Morgan | 0 |
| G. W. Mitchell, not out | 0 |
| Extras | 5 |
| Total | 28 |

STREATHAM.

| | |
|---|---|
| W. S. Trollope, c Mitchell b Rygate | 3 |
| W. Bird, b Yorath | 14 |
| E. P. Rathbone, not out | 10 |
| C. L. Morgan, not out | 11 |
| Extras | 5 |
| Total | 43 |

Messrs. A. C. Broadbent, E. C. Bambridge, N. C. Bailey, J. M. Harper, E. Drake, H. E. Petherick, E. P. Pulbrook, did not bat.

A full account of the Final Cup Tie will be given in our next Number. Guy's won by 6 wickets.

Guy's Hospital Gazette,
*JULY 21, 1888.*

# Green Extracts.

## RESEARCHES ON THE PHYSIOLOGY OF THE BLOOD.

BY DR. L. C. WOOLDRIDGE.

*(Continued.)*

*The interaction of A. and B. Fibrinogen in the production of Fibrin.*

The nature of this reaction is best studied in peptone plasma. So long as A. fibrinogen is present, this can be made to clot by means of a stream of $CO_2$. Before the clotting the plasma is entirely free from fibrin ferment, but after the clotting the fibrin ferment is present. As A. fibrinogen is gradually removed, the plasma clots more slowly with $CO_2$, and less ferment is formed. If by means of long cooling all the A. fibrinogen be removed, the plasma can no longer be made to clot by a stream of $CO_2$, and no ferment is formed.

If now to the plasma we add A.-fibrinogen (that is to say, so long as this is not too much altered), it will again clot on the passage of a current of $CO_2$. In the clotting of the plasma there is a total conversion of its fibrin factors into fibrin. However, it is not necessary to add A. fibrinogen itself; one of its constituents suffices, namely *lecithin*. If we add this substance to the cooled plasma and then conduct through the plasma a stream of $CO_2$, it clots just as well as if all the A. fibrinogen were present, and in this clotting a large amount of fibrin ferment is formed.

Thus, we see, there exists a great analogy between the action of lecithin and that of the A. fibrinogen; and if we remember that the latter contains lecithin, it seems exceedingly probable that the action of the A. fibrinogen depends on the lecithin it contains. We might conceive that the first effect of the lecithin is to cause the formation of ferment, and that the ferment then reacts on the B. fibrinogen, which has been altered by the stream of $CO_2$. This, however, is not the case. With regard to this conception, the following experiment is instructive: A peptone plasma is prepared which is not quite fully peptonised. I must here remark that the behaviour of peptone plasma differs somewhat, according as more or less peptone than the ordinary dose (·3 grammes per kilo) has been injected. If the dose is smaller, the plasma is much more easily made to clot, and we need only add lecithin to bring about the clotting; and the same holds good for normal cold plasma. For example: slightly peptonised plasma is cooled, so that the ordinary precipitate of A. fibrinogen is produced. This assumes very soon a fibrin-like consistence. The clear plasma is now separated into two portions: one half is heated with lecithin and cooled to O°C; a large quantity of a coarsely granular precipitate is produced, which soon forms a mass of fibrin, so that the whole plasma becomes solid. This fibrin corresponds in all respects with the ordinary fibrin. The second half is treated with ferment and cooled to O°C; no change takes place. I think the experiment may be interpreted by assuming that the B. fibrinogen requires the presence of lecithin for its change into fibrin, and that in this action the ferment plays no part.

The direct proof of an action of the lecithin on the isolated B. fibrinogen is much more difficult to give, and for the following reasons. As I have shewn above, B. fibrinogen very quickly undergoes alteration on its separation from the plasma into Hammarsten's fibrinogen. On the latter substance, neither lecithin nor lymph corpuscles have any effect. So long as the alteration of the B. fibrinogen has not gone too far, the lecithin promotes coagulation, but it is very hard to control the stage of this alteration, especially in dog's blood. I have only succeeded in horse's blood. For this experiment the blood is allowed to flow from the vein into magnesium sulphate solution (1 vol. Mg $SO_4$ sol. to 3 or 4 of blood). The plasma, which is free from A. fibrinogen, is precipitated by addition of the same volume of Na Cl solution. The finely flocculent precipitate is collected by means of the centrifuge, dried between filter paper, and then dissolved in weak alkali. The solution will last some time without clotting, but clots very quickly on addition of lymph corpuscles. It clots, moreover, but rather slowly, on addition of lecithin. The experiment is generally successful, though at times it fails. This is probably owing to the fact that, as we mentioned above, too free dilution of the solution changed its properties. Secondly it is often difficult to diffuse the lecithin satisfactorily through the fluid on account of its insolubility.

I have prepared the lecithin for these experiments from various sources—brain, testis, lymph glands, *thymus*. The lecithin from all these sources was efficient. On the other hand, it is possible to prepare a lecithin out of hens' eggs or spawn of fish which has not the slightest action on plasma. In these cases we are probably dealing with different kinds of lecithin. With the exception of their behaviour towards plasma, they all possess similar properties, especially the formation of a precipitate with platinum chloride, their richness in phosphorus, the formation of myelin drops, their solubility in alcohol and ether. If the solution of lecithin prepared as I have described is precipitated with platinum chloride, the supernatant fluid, containing the small quantity of impurities is totally devoid of any action on plasma, while lecithin recovered from the platinum precipitate is as efficient as before.

Besides the two bodies which I have denoted as A. and B. fibrinogen, and which are present in blood plasma, it is possible to prepare other substances from various sources which possess considerable power of bringing about coagulation. These substances are all proteids in combination with a good deal of lecithin. They can be

procured from the testis, lymph glands, chyle, brain, thymus, and stroma of the red blood corpuscles. They are not perfectly identical with one another, although they possess many properties in common. It is especially noteworthy that they are insoluble in very diluted sulphuric acid, or in diluted acetic acid, a reaction which distinguishes them sharply from paraglobulin. These substances will not bring about coagulation in extra vascular plasma, such as peptone plasma, but on injection into the circulation they cause the most extensive intra-vascular clotting. In this clotting, whether extra or intra-vascular, the substances disappear as such, and as the quantity of the fibrin found varies with the quantity of the substance injected, we must assume that in part at least it is converted into fibrin. These substances, too, like the lymph corpuscles and lecithins, are wholly without effect on diluted magnesium sulphate plasma, or on a solution of Hammarsten's fibrinogen. Thus they can contain no fibrin ferment. When, however, they cause extra-vascular clotting, a large amount of ferment is simultaneously produced, thus illustrating again the analogy with the action of pure lecithin.

In conclusion I should like to make some remarks on the fibrin ferment. There can be no doubt that from serum we can procure a substance possessing all the properties which Alexander Schmidt ascribes to the fibrin ferment, especially the power of changing a certain form of fibrinogen (the fibrinogen of Schmidt and Hammarsten) into fibrin.

The important rôle, however, which has been ascribed to this substance in the clotting of normal plasma can no longer be maintained. It has been assumed that the ferment is wanting in the blood which has just left the vessels, and that it is then produced through the death and destruction of the white corpuscles. Disregarding the fact that it is very doubtful whether the white corpuscles have anything to do with this substance, we must at any rate look upon it as certain that the ferment is not produced in so simple a manner. Dead leucocytes out of lymph glands contain no fibrin ferment and have no effect on Hammarsten's fibrinogen, or on very dilute $MgSO_4$ plasma. On the other hand, they produce clotting in various kinds of plasma, and simultaneously fibrin ferment appears, although this is present in neither the cells nor the fluid plasma.

In like manner the fibrinogens which may be procured out of the tissues, thymus, testes, &c., are quite free from ferment, and without effect on Hammarsten's fibrinogen, or on dilute $MgSO_4$ plasma, although they produce clotting in normal plasma, and at the same time give rise to the production of fibrin ferment. These latter substances cause intravascular clotting; and it has been already mentioned that the quantity of the clot formed increases with the quantity injected. If the quantity injected is sufficient, the whole fibrin of the blood can be separated out, and in this process only a nominal quantity of ferment is formed. It is evident from this that Hammarsten's fibrinogen cannot exist within the vessels, for this, too, clots only with ferment, *not* with mother substances of ferment such as leucocytes, tissue fibrinogen, stroma, or lecithin.

In accordance with this, it is possible to inject even large quantities of fibrin ferment into an animal without causing intravascular clotting.

*(To be continued.)*

## ACTINOMYCOSIS.

An interesting article on this subject appears in the May number of *The Practitioner*, and, as no case has been reported at Guy's, it may be worth while giving a short account of the disease. Though it has long been known among cattle by the names of "worm" and "woody tongue," its true cause was first discovered by Bollinger in 1877, and, two years later, the first case observed in man was reported by Ponfick. Since then many cases have been put on record, and in the Journals of the present week a recent case occurring at St. Thomas' Hospital is mentioned. In forty out of seventy-five cases in man the primary disease was found in or near the mouth and jaws, and in animals the tongue is very frequently affected. The naked eye appearances of the disease bear a very close resemblance to tuberculosis or new growth, and several specimens exhibited in museums as examples of tubercle have proved on examination to be in reality actinomycosis. Thus, a lad died with genito-urinary tuberculosis. Post mortem: nodules were found in the liver, which, on cursory examination, were thought to be tubercular, but on imbedding the liver tissue in celloidin, the special fungus was easily demonstrated. The actinomyces or ray-fungus is a yellowish spherical body, having a delicate filamentous centre and a broad peripheral zone of club-shaped rays, which is its characteristic feature. These bodies may be recognised in the discharge from an abscess as minute yellow grains. In the tissues they are surrounded by a ring of granulations like a miliary tubercle, and as the fungus often drops out of its nest, the visceral deposits generally have a peculiar honey-combed appearance. The clinical features of the disease are those of extremely chronic inflammation, with very little true suppuration, and an entire absence of general symptoms. When the jaw is affected a diffuse soft swelling slowly forms, which, when opened, consists of soft spongy granulation tissue with a few drops of pus. Numerous sinuses are left, and these continue to discharge a watery fluid. In advanced cases deep abscesses form along the spine, which burrow in various directions. At the same time the abdominal and thoracic viscera may become affected. A case is quoted of a middle-aged man who was under observation for two years with sinuses in the epigastric region, which persistently discharged a watery fluid. It was diagnosed as a case of actinomycosis, though the fungus could never be discovered in the discharge. We are able to state that, since the publication of the article under consideration, this patient has died, and, though no autopsy

was permitted, a small piece of the liver was abstracted which abundantly justified the diagnosis.

The average duration of the disease is given at about twelve months, death usually resulting from extension of inflammation, pleurisy, &c., or from exhaustion and lardaceous disease. But it must not be supposed from this that the cases are uniformly fatal, for there are many on record in which operative measures have been successful when the disease was so situated as to admit of complete removal. When once the viscera have shown signs of infection the prognosis is bad. A full bibliography of the subject will be found in one of the French Reviews for the end of last year.

## REST AND PAIN.

*(Continued.)*

In the beginning of this paper I quoted an aphorism to the effect that nine-tenths of success in practice depends on accurate diagnosis. There is still the one-tenth to be discussed, and that is *treatment*. It is of all importance. It is useless as far as your patient is concerned, to know the œtiology, pathology and diagnosis of his disease if you cannot cure him! This knowledge is good—it will probably lead to some treatment, which then will be all the more rational. Take cancer. We know a considerable amount about its structure and diagnosis, and alas! about its future. But how much more valuable, if in place of this, we knew some drug which would control it, as mercury and pot. iod. do syphilis. Better to know empirically that quinine is good for ague and know nothing more about ague, than have at your finger ends the mass of accumulated information. Regarding malarial disease with this one exception, the wonderful influence of quinine upon the morbid processes then at work. Let us now turn to one of the means we adopt, guided by our reason, to effect a cure. We have discussed some of the Protean aspects of *pain*, let us now turn to the therapeutic influence of *Rest*.

By rest as a curative measure we mean the removal of the strain, the easing of the tension and the alteration of the conditions whenever and wherever such have become in whatever way incompatible with the proper discharge of function. "Rest is something more than mere negative motion," Mr. Gamgee says; "mechanical, constitutional, local; medicinal and manual resources such as darkness, mental quiet, opiates, position, suspension, cold and pressure are all, in proportions appropriate to each case, powerfully contributory to rest and repair." After all, it is useless to attempt to define rest. Its true signification will be better seen with its significance in the examples by which I shall attempt to illustrate its mode of action and a few of its applications.

Nothing in nature seems to me more wonderful than the contrivances by which rest is insured to every organ and part, unless it is the fact that every organ and part does obtain at some time or other, rest from labour. The heart is about as ceaseless in its movements as any organ well could be; yet if the periods of diastole were added up, see what a fair share of rest this all-important viscus takes in the twenty-four hours. So also with the rhythmic muscular contractions of the spleen; and the expansion of the liver and kidney during their activity, and their collapse and rest after the same. Then notice the periodicity of the phenomena of menstruation, the rise and fall of sexual feeling and the like. See what periods of rest plants gain during the excessive heat and cold periods. In the arid plains of South Africa, the country for three-fourths of the year resembles an English road with never a suspicion of green; but a good rain will in thirty-six hours change the face of the country into a blaze of colour whose variegated splendours, briliant delicacy of tinting and wonderful variety, casts completely into the shade the gorgeous flower beds of a London park: and surely the cause for the tremendously rapid development is to some extent to be found in the long periods of rest to which vegetation in these districts is condemned.

Turning again to the animal world; of what use is the ligamentum nuchæ in the ox, and the strong Y-shaped ligament in man, if not to relieve the muscles of the strain of supporting the head in the one instance, and in the other of maintaining the erect posture.

Rest renews the power destroyed by excessive exercise—just as the ringing for some time of an ordinary electric bell, will "work out" the Leclanché cell which supplies the electricity—while a short period of rest allows the cell to recover itself. A nerve-muscle preparation, if over stimulated, will after a short time give no response—but after a short rest, quite a small stimulus will arouse the refreshed protoplasm into action. Nature invariably protects from outside interference important organs—thus ensuring them rest and quiet for the healthy fulfilment of their functions. The eye is protected by the prominent brows from blows, and the rapidity with which the orbicularis muscle can contract is wonderful.

The pericardium, stretched between the deep cervical fascia and the diaphragm by the latter's muscular activity, effectually prevents the lungs pressing upon the heart; but it is to the wonderful provisions for ensuring safety to the brain, that I wish to draw particular attention. First of all, it has a strong bony case—developed very early, to protect it from without—and strong septa and coverings to prevent its delicate texture being unduly pressed upon from within, during rapid movements of the head. It has a waterbed upon which it rests, and the efficacy of this contrivance is proved in that the portions of the brain where this is deficient are those which usually are injured most easily. The cerebro-spinal fluid performs other functions; it allows the great vessels at the brain's base to break up without being pressed upon, it keeps apart the convolutions and thus prevents the small arterioles from being occluded by pressure; hyperæmia of the brain is rendered non-dangerous by the escape of some of the fluid into the cord; although Foster lays very little stress upon this.

Then again, with regard to the brain's blood supply. In the fœtus the purest blood goes to the brain; and we have, in the fœtal skull, in addition to the sinuses of the adult, numerous other venous outlets—viz., the parietal, mastoid, &c., foramina. In this last fact. Mr. Hilton ("Lectures on the Cranium") sees a provision against injurious congestion of the brain by the fits of passionate unreasoning crying, to which children are prone. Epistaxis may in children carry off from the longitudinal sinuses, excess of venous blood. All these are subservient to the idea of allowing the brain absolute rest to permit it to exercise undisturbed its wonderful and as yet only half-known functions. There are three kinds af Rest to which I wish to draw attention.

(1.) *Rest of the whole body in sleep.*
(2.) *Rest of the mind.*
(3.) *Local Rest of a diseased part.*

"The modus operandi of these is to allow the impaired or lost functions of a part to be reinstated by maintaining equilibrium of demand and supply. Hence it is only by availing ourselves of the physiological properties of component parts of a body, that rest becomes a therapeutic agent. This physiological rest is not a distinct variety, it is but the principle which regulates the employment of the other three, and *it* is the curative agent."

But before going into this last point, let us see to how large an extent is disease accounted for by want of rest. To begin with foreign bodies. Why do they cause disturbance? It is not their large size which does it, though we all expect nature to resent the swallowing of a couple of unrolled bandages and a pair of braces! But see what a turmoil a speck of dust in the eye, or a hair in the larynx will rouse! Properly prepared silk ligatures are generally encysted in a wound, but if not quite aseptic they will cause the wound to remain open until they can be got rid of. Mr. Jacobson removed a thyroid cyst once at Tunbridge Wells, and ligatured upwards of thirty vessels; the wound healed all but a small sinus, through which every ligature used discharged itself, and then, when proper physiological rest was procured, the sinus healed up straight away.

Pressure, undue pressure, is a pregnant source of disease. Corns and bunions are the painful and disfiguring results of improper boots. A miner, constantly leaning on one elbow, gets the bursa there inflamed and painful. The kneeling housemaid develops housemaid's knee. The result of tight lacing is well known.

The irritation of nerves may set up great and far-reaching disturbance; and in illustrating this fact, I cannot do better than quote some of the interesting cases given by Mr. Salter in a volume of the Guy's Reports.

The position and relations of the teeth account in part for their influence when diseased. "The posterior lower molars are close to the tonsils, Eustachian tube, the parotid gland and its contents, and the auditory meatus. The fangs of the upper back teeth approach the orbit and the sphino-maxillary fossa and fissure." (Salter.) Thus it is easy to account for the nervous complications which are directly entailed by the spread of inflammatory disease from the periosteum of the diseased teeth. The supra orbital and the Fifth Nerve are the ones usually attacked by neuralgic pain dependent on dental disease, but even the brachial plexus is not exempt. In the case of a young girl, no room was left for the left upper canine to appear—its neighbours dividing amongst themselves its legitimate position. When it attempted to come down, severe headaches resulted—worse in the day and circumscribed. All remedies failing, the tooth was cut down upon and removed, and complete recovery followed.

In a married lady, caries of the teeth in the left lower jaw *always* caused severe neuralgic pain in a small, well-defined spot on the left fore-arm, two inches below the line of flexion, and artiffcial teeth in the *same place* caused the same trouble. Amaurosis, caused by the crowding of teeth in a small jaw, has been instantly cured by extracting some of the teeth. Acute pain in the ear, tooth, side of neck and complete deafness were caused by and cured after the extraction of an inflamed right lower molar. Then again unilateral furring of the tongue, blanching of the eye or scalp, and complete change in the colour of an iris have all been caused by irritation of the Fifth Nerve by a decayed or rugged tooth. Sir Andrew Clark (*Lancet*, Nov., 1887) accounts for the symptoms of chlorosis by "retention of the feculent contents of the bowel in the colon, this being usually considered as a symptom of and not the cause of chlorosis. Retention of faeces by the natural folds of the rectum is, in Mr. Jacobson's opinion, a very likely cause of cancer in that region.

The disturbances due to dentition in infants has been, according to Dr. Goodhart, greatly exaggerated—"More should be put down to the fact that at this period the whole system makes rapid strides; and, it being a time of transition, the increased activity of all the physiological processes at work necessarily implies greater risks of friction between one organ and another."—(Goodhart, "Diseases of Children.")

Certain trades, from their tendency to irritate one part of the body, very often have certain diseases very common to those who follow them. Thus workers in drugs, as dyers, printers, soap makers and the like often have dermatitis. A gardener gets cancer of the tongue or lip because he is always holding a straw in his lips. Sweep's cancer, or cancer of the scrotum, used to be very common, and many other examples might be given.

Finally, medicine itself, if abused, is a frequent source of trouble. Dr. Hale White once was called to see an old lady. He observed no less than 45 medicine bottles on a shelf; and he cured the old soul by stopping all drugging, except of that useful class, not mentioned in the Pharmacopœia, known generally by the term "placebo."

If then in healthy organs the want of rest is so potent for evil, how much the more will it be so in diseased structures. A diseased kidney must have some of its work knocked off, and the extra work may be taken on

by the bowel or skin. I once heard of a doctor (a young one) killing his patient by stopping diarrhœa by using strong astringents, without ascertaining the reason for the presence of the diarrhœa—the extra work thus being thrown back upon the kidneys, they were unable, through disease, to get through it, and death was the result.

A man with heart disease *must* take things easy—"He *must go*," as Dr. Pye-Smith says, "at *half* speed;" and the same physician gives an example of a man with heart disease, who never runs for a train. He once saw a train starting from Victoria for Brighton—he very badly wanted to catch it—but though urged to *run* by a friendly porter, he refused, and saw the door banged in his face, and the train leave without him. But by thus sparing himself, the man has succeeded in living to a very advanced age.

An organ like the heart will often do a certain amount of work well, but may break down on a slight addition being made.

*(To be continued.)*

## PHILOSOPHIA MEDICI.

REFLECTIONS AND NOTES
By WALTER MOXON.
1857 to 1869.
XIII.

Is pleasure a *state* of the individual capable only of greater or less? Is pleasure a light of the individual, capable of hues from yellow bright to sombre purple? Is pleasure a motive of the individual, rather capable of vibrating as light or vibrating as sound, or trembling as touch, or moving in mechanical mass.

"Where they come from, their wisdom will perhaps tell you," said the sexton; "but I know where they go to—under the sod—with all their learning and with all their grandeur; under the sod—with all their wit and with all their prettiness. The pomp and ceremony comes all the way down here with them, but it stops above the grave's mouth—it has no place under the sod."

However low the hill you have just now to climb, if it is higher than your head, it will rise enough to cut off all view of distance beyond, however extensive that prospect may be.

The individual seeks the pure light, and loves and worships what has light and shade.

Odd and suggestive that Ruskin makes the reaching of anthropomorphic view of nature by the Greeks the height of human pure development, while the physical philosophers class it as a low stage.

It must be right to accept the ancient myths as Ruskin does. An ensouling of the nature-things that to the heartless are dead, with man's own mindplay to know the reception of its likeness in the nature-powers. You feel it in all you see, as you see the landscape, the sea, the sky. We know that they receive our likeness.

Great reformers never quite understand the thing they are going to correct, and hence fortunately they end in adopting a good deal of what they attacked in bulk, when they succeed to official or otherwise practical dealing with what they have attacked in bulk.

The measure of a man's value to himself is his power of reducing things presented to him into matter comprehensible to himself. The measure of his value to other people as the teacher is the comprehensibility of what he thus comprehends to those he is addressing. But it may be that he can comprehend easily, and so utter clearly what they cannot comprehend. And on the other hand, it may be that they see round and despise the little of a subject that with all his labour he is able to comprehend and to utter. Thus it may be that his own value to others is made none by their shortcomings. (*Re* Ruskin's Political E.)

However well you are succeeding in what you are trying to do, you must have a spiritual region in which this success is of no account or estimate. You are sure to have desires beyond your success into which the success can no more enter than the carriages can get into the engine. You would not get on if you had not these desires, even the little you have got on, and these desires are not of a nature to be reached by satisfaction. Don't be so taken up by success that you neglect that other world, nor be so depressed by ill success, so agonised in the strife for success, as to suppose that it enters into the great eternal in which you have an infinite share and which will never fail your trust, nor ever fall short of your expectations.

## ON IMMUNITY FROM SMALL-POX.

By W. HEMPSON DENHAM.

In the present unsettled state of Medical science, it is pleasing to see a new idea on the diagnosis and treatment of disease if it offers a reasonable chance of benefit to the patient. The theory of the Medical Superintendent of Hospital Ships in the last number of GUY'S GAZETTE is strikingly new, but, to my mind, is contrary to all experience, and is unmistakeably wrong. To identify small pox with mere abrasion of a part from muscular and mechanical action, seems a wild perversion of conditions likely to mislead the unthinking and inexperienced. What would Cullan and the classical Mason Good have said to such a heterodox distortion of nosological thought?

Their every hair would stand erect as they wondered and read.

Ringworm, too, according to the Superintendent, is merely the result of outward irritation, but of what kind the Superintendent does not say. Yet seemingly without intending it, he shows that the cause is a constitutional wrong, inasmuch as he says it "grows" *under* the surface, but spreads and advances *on* it. What, however, can make it gyrate in such a way but the action of some "law" of disease, and what "law" can transmute an abrasion into a veritable morbid change?

Who does not remember the spread of ringworm years ago amongst the hundred and odd boys in Christ's Hospital to the incomprehension of doctors, dismay of authorities, and annoyance of parents who had boys in the school? But are we now to be told that each of those infected boys had only some mechanical irritation which produced the ringworm that grew and spread, but was not produced by the constitutional derangement caused by the bad feeding to which the boys had been unintentionally exposed.

Then, again, with regard to Small Pox, I demur to much the Superintendent has said about it. That it is a merely local disease must be a misapprehension of fact; there does not seem a particle of evidence to support the thought. On the contrary, everything points to it as a constitutional malady continued by contagion to the imperfectly vaccinated, but produced at first by special atmospheric action on the water of rivers and shores contaminated by sewage. If, too, the doctrine of similars be true—and the evidence to support it is strong indeed—then Small Pox and Cow Pox are similar diseases, but not identical or the same. The shade of difference is shown by the fact that Cow Pox, properly conveyed, annihilates the tendency to Small Pox.

Rightly conveyed and received, my experience teaches me that Cow Pox is prophylactic against Small Pox from infancy to old age. That re-vaccination is therefore a mistake and quite unnecessary, except to prove that modern vaccination is a deteriorated article compared with that which the elder Jenner introduced. That much evil in the form of disease has been produced by vaccination is absolutely indisputable. But that is not the fault of vaccination properly employed. It shows, however, that we must not expect a perfect result from an imperfect cause. The real cause of the failure of modern vaccination, I believe, is due to the depreciation in the quality of the lymph that occurred on the introduction of the New Poor Law, and the grinding insults heaped on medical men of the period by the then Assistant Poor Law Commissioners. Before that period I believe it was impossible to find an instance in which Small Pox succeeded vaccination. But what are the facts now? Why, that as many as 75 per cent. of the vaccinated cases have been succeeded by Small Pox and other repulsive diseases. How could such a result come except from deterioration of the lymph employed? That such ill effect has been brought about by the cause just stated is, I believe, capable of demonstration; but it would occupy too much of the available space of the GAZETTE to do it. Still it is a matter of such vast importance to the whole community, here and perhaps abroad, and would involve a modification of one or more laws, that the subject ought to be examined and a remedy applied.

# Hospital News.

## INTERESTING CASES.

STEPHEN.
17. Post diphtheritic paralysis.
28. Typhoid.
35. Thoracic aneurism.
36. Perityphlitis, retention of urine.

MARY.
10. Lardaceous liver.
Cots 56 and 58. Infantile paralysis.
47. Typhoid.
49. Arthritis, ? gouty, ? sub-pyæmic.

PHILIP.
1. Hydronephrosis.
11. Crossed hemiplegia.
12. Paraplegia.
22. Alcoholic multiple neuritis.
24. Growth pressing on bronchus.

MIRIAM.
17. Cardiac Syph. gummata.
21. ? Hydronephrosis.
23. Cardiac.
30. Hysterical aphonia and stuttering.

ACCIDENT.
29. Supra-dural clot—Trephining.

CORNELIUS.
20. Dupuytren's fracture.

LYDIA.
6. Fragilitas ossium.
15. Fractured base.

MARTHA.
2. Necrosis of Petrous bone.
6. Ovarian.

JOB.
11. Stricture of œsophagus.
23. Supra-pubic puncture.

LAZARUS.
20. Pharyngotomy.
10. Epithelioma of floor of mouth.

LUKE.
6. Early hip.
9. Gonorrhœal arthritis of knee.

CHARITY.
6. Ovarian.
9. Abscess over great trochanter.
Cot D. Burn-"rash."

NAAMAN.
26. Axillary tumour.

# Passim.

THE Cricket Club have been unfortunate again: two matches having to be left unplayed, although the teams were on the ground, in consequence of the bad weather lately. These were Norwood and Blackheath, and it was found necessary to scratch Teddington on the evening before, in consequence of nine men out of eleven being unable to go down. The engagement with Mitcham, on Saturday, has fallen through, owing to its being the end of the Session, and men are fast leaving the Hospital for their vacation.

WE must congratulate J. C. Shenton on having been asked several times to play for Middlesex, and we hope he may be successful when he does appear for them.

FROM the Cricket averages which we publish this week, it will be seen that F. Colclough, thanks to a large number of "not out's," is at the head of the list, Shenton being a good second. After this, there is a very great gap. These two averages are the highest that Guy's have had for a very long time; certainly the Cup Tie average of Shenton is a record—365 runs for 4 complete innings.

THREE centuries have been made this season; two—172 and 149 not out—by Shenton and one of 124 by Colclongh, so that Guy's in the way of Cup Tie records hold them all—the highest total, 363, for 7 wickets; the highest individual score, namely, the 172 of Shenton's. The only centuries made in Cup Ties have been made by members of our team. Scott last year and Shenton and Colclough this season, and some two seasons ago Cruikshank and Rygate romped King's out for 3 and 20—the smallest totals made as yet.

THE *Morning Post* is unconsciously sarcastic in its account of Wednesday's proceedings. They report that "Dr. Taylor drew special attention to the fact that during the past year five students had been admitted to the membership of the Royal College of Surgeons." We congratulate those five gentlemen most heartily on their well-earned success; but if this represents all that Guy's can do in a year, we think it does not say much for the working of the conjoint scheme. When Pressmen are invited to such festivities, they need "instruction" and "refreshing" like a Q.C.

THE Cup Ties for the next year have been drawn. We are to play St. George's, who are again coming into these competitions after an absence of five years.

IT may cheer and stimulate some of our readers to peruse the following extract from a letter written by Dr. George Anderson, recently House Physician:—"If any one doubts the value of taking a good degree, I may say that my success here has been entirely due to having the London degree, as I got my partnership and both appointments solely on the strength of it. I mention this as it may encourage others."

WE would call the attention of those who have attended Dr. Savage's demonstrations to the fact that they are eligible for the examination of the Medico-Psychological Association in Pyschological Medicine.

WE would remind those who do not already subscribe, that by payment at once of 2/-, they may obtain all GAZETTES issued until the end of the year.

MR. G. B. SMITH has resigned the editorship of the GAZETTE, and Mr. H. J. CAMPBELL has been appointed to take his place.

# Correspondence.

*To the Editor of* GUY'S HOSPITAL GAZETTE.

SIR,—The following case of malingering may be of interest to your readers in reference to those published in your last issue. The other day a man was brought to the casualty room who had been found in a fit in the road. This "fit" was said to have lasted a full hour. He had tramped from Wigan with a hazy notion that one of the professional luminaries of this town was able and willing to cure all fits and to lend money. When I saw him he complained bitterly that something was persistently thumping inside his chest, and would not be persuaded that if the "thumping" ceased, he would cease too. Finding I did not pay much attention to his symptoms he got up another "fit" for my benefit. At first I endeavoured to restrain him by force, and then tried the battery; but this, like many another battery, proved inefficient or was inefficiently manned. Finally, after about half-an-hour's very noisy convulsions, he was brought to his senses by the offer of a sovereign and the promise of the loan of twenty more at the end of the week. By means of the sovereign and the making out of agreements, I was able to keep him in play till the advent of a police constable, and my friend was then marched off to the Town Hall as a wandering lunatic.—Yours, &c.,

E. C. KINGSFORD.

Bolton, *July 13th, 1888.*

[If any of our readers know of any cases of malingering, we would be glad if they would forward them to us, as they are not only of general interest but of considerable importance in enabling the would-be diagnostician to avoid unpleasant mistakes.—ED., *G. H. G.*]

## BIENNIAL DINNER.

This took place at the Holborn Restaurant on Wednesday evening, July 4th, Dr. Pye-Smith being in the chair. It was very well attended by past and present students, and an exceedingly pleasant evening was spent.

After the time-honoured toasts of "The Queen and Royal Family," and "Her Majesty's Forces" had been got over, the chief toast of the evening, "Prosperity to Guy's," was proposed by the Chairman and responded to by Dr. Pavy. We were promised the new Residential College in a year's time, and the financial position of the Hospital was assured through the beneficence of the public in answer to the recent appeal of the Governors. Dr. Taylor proposed the health of the Prize Donors, and Mr. S. Hoare, M.P., replied. He alluded to the compatibility of physic and politics, for one evening Mr. Caine was taken suddenly ill in the House of Commons and was skilfully attended by a medical man present, none other than the renowned Dr. Tanner. With regard to the Prizes, he was of opinion that in these practical impecunious days a ten-pound note was better than laurel leaves. Of course he could not know how useful the Aqua Lauro-cerasi B. P. is on some occasions. The speeches were pleasantly interspersed with choruses and part songs by Steadman's Choir. Next on the list came "The Consulting Staff," which was acknowledged by Dr. Wilks in his characteristic style. Rising amid rapturous applause, he proceeded to define the term Consultant, but, after several amusing illustrations of the lay idea of the word, he gave it up as hopeless. Nevertheless, he wished us to understand that he had not left the Hospital, that he was still President of the Physical Society, and, though he had nothing to do with the treatment of cases in the wards, he was still permitted to attend the post mortem room. The relations of the Governing Body to the Medical School and Hospital were then treated in detail, which served to introduce the health of Mr. Bonsor.

"Past and Present Students" was enthusiastically given by Mr. Bryant, and Mr. Arthur Evershed replied, ably supporting the opinion that, since the opportunities for clinical teaching in London are so far superior to those in any other part of Great Britain, the disabilities under which Metropolitan students labour should be immediately rescinded. Messrs. Heatherley and Williams represented the Present Students, the former facetiously remarking that this was the first public dinner he had had "the pleasure of assimilating." It speaks volumes for his digestion that quail cutlets, punch à la romaine, and mayonnaise of lobster, churned up with Chablis. Madeira, and Röderer's carte blanche, could ever be productive of "the pleasure" he evidently displayed. Mr. Durham treated us to a philosophical disquisition on Galton's "Hereditary Genius," as illustrated in the ancestry of Dr. Pye Smith, coupling with it the toast of "The Chairman," which was received with musical honours in true Guyite form. After a cordial vote of thanks to Mr. Davies-Colley as M.C., the proceedings terminated with "Auld Lang Syne." We need only add, that any one who has never attended one of these spirited réunions, should avail himself of the very next opportunity.

## NOTES ON PATHOLOGY.

By DR. R. E. CARRINGTON.

*(Continued.)*

### LIVER.

*Theories of the relation of large to small cirrhotic liver.*

1. The large is an early stage of the small. There is no direct proof of this (*vide* above.) The large is often fatal.

2. The large is due to biliary obstruction and is independent of alcohol. The small to portal obstruction and is produced by alcohol. There is undoubted proof that the large liver may be due to alcohol (beer).

3. The large liver presents new ducts in the newly-formed connective tissue. This is true, but they are

also found, though to a less degree, in the small liver as well as in other conditions. One very noteworthy difference is the great excess of fat deposited in the cells of the large liver, and much of the bulk is due to this.

NUTMEG LIVER.

*Brown induration.*

*Causation.*—Any circumstance interfering with the outlet of blood from the hepatic vein. Chronic heart disease, especially mitral; chronic lung disease, especially chronic bronchitis and emphysema; other rare causes are thrombosis in the hepatic vein, cancer growing into hepatic veins, perihepatitis.

*Character.*—The liver is large, dense, and hard. Smooth in the early conditions, but it becomes irregular in chronic cases. Not uniformly and minutely irregular, but large projecting tracts alternating with depressed portions.

*The Capsule* is thickened at various points and sometimes beset with minute translucent granulations which are quite indistinguishable from tubercle.

*On Section* it presents a blending of purple parts and a brick-red pattern, and looks curiously like the pattern of a nutmeg.

*In the centre of each lobule is the intralobular vein* much dilated; this is *red.*

Next a *whitish grey* zone of atrophied liver cells; possibly caused by the presence of the large vein.

*Outside* a zone *yellow* from fatty cells. The outer zone of cells pick up the fat brought by the portal vein; so that a nutmeg liver is a compound of red, grey and yellow portions. Sometimes these three portions are not well marked; red and yellow generally predominate. In extremely chronic cases atrophy and shrivelling of the liver takes place, especially in the tract of hepatic vein. This is *Racemose atrophy* of Wilks and Moxon.

*Microscopically.*

(*a*) Dilatation of intralobular vein.

(*b*) Dilatation of intralobular capillaries.

(*c*) Atrophy of liver cells, which become full of fine granules.

(*d*) Fatty infiltration of peripheral cells.

(*e*) Some describe an excess of leucocytes around the hepatic vein. This does occur, but never to an extent that might be called cirrhosis.

Further, the connective tissue of the portal vein does undergo proliferation; but here again the change is never sufficiently extensive to constitute cirrhosis. The fact is, the primary disease (usually cardiac) generally takes the patient off before such extensive changes are reached.

SYPHILITIC LIVER.

*Congenital and Acquired.*

*Congenital liver* is enlarged and heavy, anæmic, grey in colour, or mottled by a mixture of anæmic grey and fatty parts.

*Microscopically,* the liver shows a diffused cellular growth throughout the organ; in the portal canal between the rows of cells and between the cells themselves. In another form rounded collections of small cells are met with throughout the liver, and are called *miliary gummata.* These are, however, associated with the diffused cellular growth. Gummata and scars like those of the acquired form are rare in congenital syphilis.

*Cirrhosis in children.*—Extremely cirrhotic livers are sometimes met with. The livers may be large and smooth or contracted and hobnailed. The microscopical appearances are those of the similar conditions in the adult. Many of these cases are of alcoholic origin. But in a few it seems as if this mode of origin is impossible. These have been supposed to be late results of congenital syphilis.

*Syphilitic liver of acquired disease.*—Liver is moderately enlarged. More or less cut up by cicatrices into large unnatural lobes often containing gummata. These are rounded or oval bodies, yellow, firm, and elastic, sometimes softened in the centre, and surrounded by a zone of connective tissue. (Cancer has not this latter area.)

*Microscopically,* the centre is amorphous and granular, the result of fatty degeneration; the next zone is fibroid tissue; the periphery is a zone of highly vascular, well organised fibrous tissue. The yellow gummatous material becomes absorbed, and the fibrous zone sends out cicatricial bands through the liver. Gummata nearly always occur on the surface. Besides the gummatous growth there may be a diffused growth of connective tissue throughout the portal canal, and even within the lobules.

*N.B.*—It seems, however, to be true that patches of grey cicatricial tissue may start in the liver as the result of syphilis, without being preceded by the ordinary yellow gumma.

TUMOURS OF LIVER.

*Adenoma,* cellular, tubular.

*Carcinoma,* primary or secondary.

*Sarcoma.*

The relation of adenoma of the liver to primary carcinoma is important.

Two forms of adenoma are met with—the cellular and the tubular. In either case the following varieties of the disease occur:—

*a.* Solitary nodules.

*b.* Multiple nodules.

*c.* Nodules associated with secondary growths in other organs.

It may be said that the third form is practically indistinguishable from cancer. Its relation to the other two hangs upon its identity of structure.

*The Cellular form.*

The nodule of the cellular form has a fibrous capsule, enclosing cells which have the nornal arrangement of liver cells, but are often larger and fatty.

*The Tubular form.*

The nodule of this form is composed of tubes, which are lined by cubical epithelium, and convoluled. Whether these two forms when unaccompanied by secondary growths may be regarded as adenomata, and not cancer,

is almost a question of terms. The only point in favour of the former view is that they are composed of structure resembling the normal tissue—in one case, the cells; in the other, the ducts.

CARCINOMA OF LIVER.

*Primary or Secondary.*

*Secondary Carcinomata* may arise from any primary source, and the liver is the most frequent seat of secondary cancer. Its structure will be as varied as that of the primary growth which gives rise to it.

*Primary Cancer* of liver is rare, and occurs in two forms:—

(*a*) One in which the liver is uniformly and greatly enlarged.

(*b*) In the nodular form.

The relation of the latter to adenoma is a difficult question.

The structure of the growth will be a fibrous stroma forming alveoli, containing groups of cells of epithelial character and often presenting all the grades and showing the formation from linear cells.

To draw a line between this and cellular adenoma must be in many cases impossible.

Besides this, it is noteworthy that cancer of the liver is frequently associated with much cellular growth in the portal canal and between the groups of cells, so that the distinction between it and cirrhosis is not always evident.

In fact, here and in many other instances, we have all gradations between simple inflammation on the one hand and carcinoma on the other.

ACUTE YELLOW ATROPHY.

Practically little is known as to its causation, but pregnancy is generally assigned as its cause. Sometimes it is epidemic. Alcohol and syphilis are alleged causes. The probability is that they have been only coincident.

But this fact is important, that an illness which has been going on for weeks as a simple or catarrhal jaundice may in a few days end as acute yellow atrophy.

It is doubtless true that in some cases there is an initial condition in which the liver is *enlarged*. But whether enlarged at first or not, it very rapidly (two to three days) undergoes diminution of its size, so as to lose one-half to one-third of its weight. 16 to 20 ozs. have been met with; the smallest on record is 13 ozs. The liver becomes soft and withered, and does not retain its shape; the capsule is thrown into wrinkles.

*On Section.* Two parts are more or less blended:—

*a.* Yellow part: acute.

*b.* Red part: more chronic.

The colour is of a bright yellow. Lobulation gone. The gall bladder and ducts are either empty, or full of colourless or slightly bile-stained mucus.

*N.B.*—The contents of intestine are clay-coloured usually, but often black. It is thought by many that in these cases the colour is due to hæmorrhage and altered blood.

*Microscopically.*

*The Yellow* liver cells are profoundly altered; not many, in fact, are visible, and those that are, are highly granular.

Rounded granular masses of the size of liver cells, but containing 10 to 12 nuclei are common. These are looked upon as proliferated liver cells, or, what is more likely, as aggregations of atrophied cells. Numerous free granules and oil globules are met with, and all these elements are joined in the interstices of a stroma consisting of vessels, ducts and connective tissue of liver itself. In this stroma are numerous "duct formations;" probably the normal ducts unduly prominent, through atrophy of the liver cells. But as in cirrhosis, they have been described as arising (*a*) by buds from biliary capillaries, (*b*) from the hepatic cells.

*The Red part* differs only in the effect of chronicity.

The hepatic cells have entirely disappeared; nothing being left but a granular detritus, composed of fat globules, pigment granules, and numerous free granules. The stroma, intercellular and portal canals, are considerably thickened by numerous leucocytes and more fully formed connective tissue. Similar fatty changes are met with in the kidney.

*The liver of phosphorus* poisoning differs in being large, firm, and uniform on section. Microscopically, the cells are infiltrated to a great extent with fat. There is no degeneration like in acute atrophy.

*(To be continued).*

# Sport.

## CRICKET.

### FINAL CUP TIE.

### GUY'S v. ST. BARTHOLOMEW'S.

This match was played at Streatham, on Monday and Tuesday, June 25th and 26th, and resulted in our winning the Cup for the fifth year in succession. Hubbard won the toss, and with questionable policy elected to bat. Barts' were dismissed for 109. Rygate and E. J. D. Mitchell being the most successful bowlers. Guy's made 186, thus being 77 ahead on the first innings; this result was alone due to the wonderful performance of Shenton, who went in first and carried his bat for 149. He hit brilliantly at times, and only gave two possible chances, and these being of the hardest. The value of his innings cannot be overrated, for the second total on our side was 11, and 10 men made 32 between them. With a quarter of an hour to bat, Bart's lost 2 wickets for 8 runs. On Tuesday, owing to the rain during the night, the old wicket was unplayable, and so Colclough allowed Bart's a fresh wicket to continue their innings; a proceeding which was not relished by the majority of the Guy's team. Bart's, in their second innings, just topped their first total by 3 runs, E. J. D. Mitchell again getting 4 wickets. With 36 runs to win and 2 hours to do it in, matters seemed very prosperous for Guy's, but these 36 runs took 1 hour and a quarter to get; Shenton being unfortunately caught at the wicket, Featherstone

ran himself out in attempting a risky bye, Roberts was also out in the same way, a misunderstanding, and Mitchell clean bowled. Eventually, a cut to the boundary by Colclough scored the winning hit. Hubbard's analysis reads remarkably well—20 overs; 14 maidens; 2 wickets; 11 runs.

ST. BARTHOLOMEW'S

| | | | |
|---|---|---|---|
| A. O. Hubbard, b W. G. Mitchell | 3 | b Rygate | 10 |
| G. A. Coulby, b E. J. D. Mitchell | 8 | b E. J. D. Mitchell | 13 |
| F. W. Andrew, st Busteed, b Rygate | 19 | Not out | 19 |
| T. M. Draper, b Rygate | 2 | c Roberts, b E. J. D. Mitchell | 0 |
| A. W. Lemarchand, b E. J. D. Mitchell | 2 | c Roberts, b Yorath | 0 |
| R. A. Fegan, b E. J. D. Mitchell | 0 | c Busteed, b Rygate | 15 |
| E. S. Winter, c Roberts, b Rygate | 27 | b E. J. D. Mitchell | 13 |
| J. H. Dixon, b Roberts | 14 | b E. J. D. Mitchell | 0 |
| G. H. Grace, b Roberts | 5 | b Roberts | 8 |
| W. Kent-Hughes, b E. J. D. Mitchell | 11 | c Colclough, b Yorath | 21 |
| N. B. Baker, not out | 4 | b W. G. Mitchell | 0 |
| Extras | 14 | Extras | 13 |
| Total | 109 | Total | 119 |

GUY'S HOSPITAL.

| | | | |
|---|---|---|---|
| J. C. Shenton, not out | 149 | c Hughes, b Hubbard | 4 |
| G. Featherstone, b Hubbard | 5 | run out | 0 |
| J. H. Roberts, b Hubbard | 2 | run out | 6 |
| F. Colclough, b Lemarchand | 11 | not out | 22 |
| E. J. D. Mitchell, b Lemarchand | 0 | b Hubbard | 0 |
| H. A. Smith, c Hubbard, b Lemarchand | 0 | not out | 2 |
| W. G. Mitchell, b Lemarchand | 0 | | |
| J. H. Busteed, l b w, b Hubbard | 2 | | |
| T. S. Jackson, c Dixon, b Lemarchand | 7 | | |
| H. B. Yorath, b Dixon | 1 | | |
| H. B. Rygate, b Dixon | 4 | | |
| Extras | 5 | Extras | 4 |
| Total | 186 | Total for 4 wkts | 38 |

BATTING AVERAGES, 1888.

| | Innings. | Times Not out. | Highest Score. | Runs. | Average. | Cup Tie Average. |
|---|---|---|---|---|---|---|
| F. Colclough | 13 | 5 | 124 | 412 | 54·4 | 68·1 |
| J. C. Shenton | 12 | 1 | 172 | 511 | 46·5 | 91·1 |
| H. A. Smith | 10 | 3 | 55 | 118 | 16·6 | 42·1 |
| J. H. Roberts | 13 | 2 | 46* | 170 | 14·2 | 13·3 |
| E. J. D. Mitchell | 11 | 2 | 30* | 103 | 11·4 | 6·2 |
| J. H. Busteed | 11 | 2 | 35 | 101 | 11·2 | 7 |
| W. G. Mitchell | 13 | 1 | 34 | 135 | 11·3 | 7·2 |
| G. Featherstone | 7 | 1 | 21 | 65 | 10·5 | 12·2 |
| T. S. Jackson | 13 | 2 | 29* | 97 | 8.9 | 14·3 |
| H. B. Rygate | 8 | 1 | 11* | 31 | 4·3 | 15 |
| T. H. B. Yorath | 10 | 0 | 11 | 28 | 2·8 | 5·1 |
| R. Ingram | 6 | 1 | 27* | 47 | 2·2 | — |
| W. J. Scott | 3 | 0 | 55 | 105 | 35 | — |
| J. D. Cruickshank | 1 | 0 | 30 | 20 | 20 | — |
| F. M. Russell | 8 | 1 | 25* | 84 | 12 | — |
| W. K. Steele | 4 | 0 | 4 | 16 | 4 | — |
| G. W. Mitchell | 7 | 2 | 11 | 12 | 2·2 | — |

Messrs. Wilks, Budge, Cobbe, Bowen, Hunt, A. T. Sturges-Jones, Pratt, Henderson, Jewell and Sharman have also played.

* Signifies "not out."

BOWLING.

The analysis having only been kept on a few occasions, it is impossible to give more than the number of wickets obtained:—

| | | |
|---|---|---|
| E. J. D. Mitchell | took | 34 |
| W. G. Mitchell | | 27 |
| H. B. Yorath | | 17 |
| H. B. Rygate | | 14 |
| J. H. Roberts | | 7 |
| F. Colclough | | 5 |
| G. W. Mitchell | | 7 |
| R. Ingram | | 4 |
| J. D. Cruickshank | | 2 |
| A. G. Bowen | | 1 |

And Messrs. Wilks, Scott and Shenton bowled without success.

Matches played, 13. Won, 6; lost, 6; drawn, 1.

## GUY'S v. GRAVESEND.

Played at Gravesend, on Saturday, June 23rd, and resulted in a severe defeat for the Hospital by an innings and 29 runs. Collins in the first innings was very destructive for Gravesend, as was Boorman in the second; Russell played a splendid innings for Gravesend, going in first and being not out for 76.

GUY'S HOSPITAL.

| | | | |
|---|---|---|---|
| E. J. D. Mitchell, c Collins | 7 | c Colls, b Collins | 1 |
| F. M. Russell, b Collins | 13 | b Boorman | 9 |
| H. A. Smith, b Collins | 0 | b Collins | 2 |
| T. S. Jackson, c Roche, b Colls | 0 | b Boorman | 7 |
| J. H. Busteed, b Colls | 35 | not out | 0 |
| J. H. Roberts, c & b Colls | 6 | b Boorman | 0 |
| W. G. Mitchell, b Collins | 15 | b Boorman | 17 |
| R. Ingram, b Collins | 0 | b Boorman | 6 |
| H. B. Rygate, b Collins | 2 | b Boorman | 5 |
| W. E. S. Cobb, not out | 2 | b Boorman | 0 |
| G. W. Mitchell, b Collins | 0 | b Boorman | 0 |
| Extras | 14 | Extras | 7 |
| | 94 | | 54 |

GRAVESEND.

| | |
|---|---|
| J. Russell, not out | 76 |
| D. Scott, b E. J. D. Mitchell | 18 |
| Collins, b E. J. D. Mitchell | 24 |
| F. W. Boorman, b E. J. D. Mitchell | 0 |
| J. Roche, b E. J. D. Mitchell | 1 |
| Colls, b W. G. Mitchell | 0 |
| R. J. Bryden, c Busteed, b E. J. D. Mitchell | 12 |
| C. Buss, b Rygate | 21 |
| F. C. Beck, b Rygate | 0 |
| J. Curtis, c Rygate, b Ingram | 3 |
| H. Martin, b W. G. Mitchell | 8 |
| Extras | 16 |
| | 177 |

## GUY'S HOSPITAL II. v. KING'S COLLEGE II.

This match was played at Wormwood Scrubbs, on July 7th, and resulted in a win for us by 74 runs. Jewell played a most careful innings, being at the wickets two hours and a half for his runs, and Colclough and Stevens also batted in good style. Score:—

GUY'S HOSPITAL.

| | |
|---|---|
| W. K. Steele, b Green | 12 |
| W. H. Jewell, b Robinson | 32 |
| F. Colclough, b Robinson | 32 |
| T. S. Jackson, l b w, b Robinson | 0 |
| H. S. Archdale, b Robinson | 2 |
| H. L. E. Wilks, b Robinson | 0 |
| H. W. Webber, b Brett | 9 |
| T. G. Stevens, b Robinson | 19 |
| A. V. Chapman, c Horsford, b Robinson | 10 |
| L. E. James, not out | 3 |
| J. W. Culmer, b Green | 0 |
| Extras | 9 |
| Total | 126 |

KING'S COLLEGE.

| | |
|---|---|
| B. Brookes, c Archdale, b Colclough | 1 |
| W. R. Bowen, c Colclough, b Culmer | 7 |
| R. S. Bernard, l b w, b Colclough | 9 |
| H. C. Brett, l b w, b Colclough | 0 |
| K. Robinson, b Culmer | 11 |
| E. Green, b Culmer | 0 |
| D. M. Farnum, run out | 8 |
| H. E. Horsford, b Culmer | 0 |
| H. C. Pearse, not out | 9 |
| H. C. Thomas, c Colclough, b Culmer | 2 |
| Extras | 5 |
| Total | 52 |

## GUY'S HOSPITAL II. v. LONDON INTERNATIONAL COLLEGE II.

Played at Isleworth, on July 14th, and resulted in our favour by 101 runs. Steele played a very good innings of 80, which included many boundary hits, and Whittington and Stevens were also in good form. Score:–

LONDON INTERNATIONAL COLLEGE.

| | |
|---|---|
| E. Lannowe, b Whittington | 2 |
| J. C. Taylor, c & b Whittington | 0 |
| H. Norris, c Sub., b Whittington | 0 |
| E. Murray, b Whittington | 0 |
| H. Ladell, c Stevens, b Jewell | 20 |
| B. Behr, c Jewell, b Whittington | 1 |
| S. Bullock, c Smith, b Wilks | 12 |
| R. Whitmarsh, c Stevens, b Jewell | 1 |
| F. Fox, c Jewell, b Brown | 0 |
| J. Macdonald, not out | 5 |
| F. Schmidt, c Jewell, b Brown | 3 |
| Extras | 3 |
| Total | 47 |

GUY'S HOSPITAL.

| | |
|---|---|
| J. W. Whittington, c & b Lannowe | 26 |
| W. K. Steele, l b w, b Behr | 80 |
| J. Smith, c Fox, b Norris | 2 |
| T. S. Stevens, b Behr | 16 |
| J. W. Jewell, b Ladell | 2 |
| F. H. Brown, c Fox, b Ladell | 5 |
| H. L. E. Wilks, b Bullock | 8 |
| H. W. Webber, b Behr | 3 |
| L. E. James, c Lannowe, b Bullock | 0 |
| C. de Korte, c Lannowe, b Bullock | 0 |
| Armitage (Sub.), not out | 0 |
| Extras | 3 |
| Total | 148 |

## FOOTBALL CLUB.

The annual summer general meeting was held in the Anatomical Theatre on Monday, July 2nd—Mr. Davies-Colley in the chair.

The first business of the meeting was to present Mr. H. J. Holman with a handsome testimonial, taking the shape of a tantalus and an album containing the signatures of the subscribers, in recognition of the services rendered by him in the Association team to the Guy's Hospital Football Club.

The Secretary (A. Allport) briefly ran through some of the facts which had induced the Football Club to make this presentation, saying that Holman had captained the Association team for three seasons, in each of which Guy's had been successful in winning the Inter-Hospital Association Cup, and during his last season he had also brought back the Surrey County Association Cup to Guy's, thus placing us in a good position amongst outside clubs. This brilliant list of successes was mainly due to the indefatigable efforts of Holman, and both the Rugby and Association men in the Hospital had seized this opportunity of showing their deep appreciation of his services.

The President (Mr. Davies-Colley) then presented the testimonial; and Holman replied by thanking the meeting warmly in a few well-chosen words.

The Treasurer then submitted the balance-sheet for the past season, which showed an increase in the balance of £10, and was adopted by the meeting.

The meeting then passed several important alterations in the rules, too long to be given here, and then proceeded with the election of officers for the ensuing season, 1888-89. The following were elected:—

*President*—J. M. C. Davies-Colley, Esq., F.R.C.S.

RUGBY.

1st XV. ... *Captain*—A. Allport.
*Hon. Sec. and Treasurer*—J. H. Bryant.
2nd XV. ... *Captain*— . James.
*Secretary*—A. E. Durham.

*Committee.*

A. D. Fripp. W. Bligh.
W. G. Rogers. F. G. Swayne.
N. Instone.

ASSOCIATION.

1st XI. ... *Captain*—F. H. Brown.
2nd XI. ... *Captain*— . Webber.
*Hon. Secretary*—W. E. Sturge-Jones.

*Committee.*

H. J. Holman. C. G. Roberts.
E. J. D. Mitchell. H. A. Smith.
E. Hunt.

The meeting then closed with a hearty vote of thanks to the chairman.

## NOTICE TO CORRESPONDENTS.

*The Editors wish it to be understood no communications can be inserted which are not guaranteed by the name of the sender. All articles must be written on one side of the paper only.*

Guy's Hospital Gazette,

*AUGUST 4, 1888.*

## NOTES ON A CASE OF IMPERFORATE ANUS.

On July 9th, a child, 4 days old, was brought up to Out-patient's, with a history of vomiting and of not having passed anything per rectum since its birth.

On examination there was found a perfectly well-formed anus, but communication with the rectum seemed cut off by a thin septum. Abdomen was distended and face much pinched in expression. Vagina was very large and permitted the tip of the little finger to be introduced, with which no distended bowel could be felt.

An incision was made through the septum, but no fæces escaped and no gut could be felt. After this Mr. Symonds kindly allowed me to take on the case.

In the Surgery, with the kind assistance of Messrs. Heatherley and Padbury, with the child in the lithotomy position, we dissected up from the perinœum hoping to bring a piece of bowel down to the anus.

After we had dissected up for 1½-2 inches, and freely opened the peritoneum, we thought we could feel a piece of bowel which we punctured but no fæces escaped, nor were we more successful in our endeavours to bring a piece down to the anus.

Failing in this, nothing was left but to perform colotomy.

Choosing the left side we cut down in the iliac region, and a very thick distended piece of gut presented at the wound, which was stitched to the walls of the abdomen with a continuous suture, and opened, allowing a quantity of fæcal matter to escape. After a little trouble from hæmorrhage, the wound was dressed and the child sent home to its mother.

No chloroform was administered.

On July 11th. Child appeared well and hearty; nurse says it takes its food eagerly and passes its motions freely by the wound. Perinœal wound all closed up and no signs of any peritonitis.

Since then the child has continued to come up as an out-patient and has thriven well. The only trouble being the irritation of the fæces around the wound.

July 19th. Child was christened.

July 25th. Child quite well and growing fat. Wound rather red and angry looking.

*Remarks.*—How long this child will really live remains to be seen. The chief difficulty is keeping the child clean, though the nurse evidently pays great attention to it.

The case bears out in one point a short paper in the 20th Vol. of the Clinical Transactions, by Mr. Mayo Robson, in which he says, "always try and bring the bowel down to the anus, freely opening the peritoneum," and though we failed in bringing the gut down in this case, yet no evil resulted in thus opening the peritoneum, and should it succeed the irritation which is now troubling us would be avoided.

F. S. HAWKINS.

## DIABETES MELLITUS—COMA—DEATH.

Fanny Perkins, æt. 44, admitted into "Clinical" under Dr. Hale White, on April 20th, 1888, with hard lumps in abdomen, and sugar in the urine. Family history, good. Previous history, good; the only points of importance being that she has always worked very hard, and has been exposed to sudden changes of temperature.

She is married, and has had twelve children, the first twenty-five years ago, and the last 2½ years ago. The patient states that her illness has only been coming on for the last two years, but her daughter states that she has not been well since her confinement. The child was healthy at birth; the patient only suckled the

child for a week, as her doctor considered it better to wean it. Two years ago both mother and baby had severe colds, and shortly after this the baby had convulsions and died. The patient noticed at this time that she was very thirsty and that she passed a large quantity of water; feeling generally ill she attended, as an out patient, at the Croydon Hospital, and was there told that she had diabetes. From this time patient has always felt ill, and languid, easily tired, and often bewildered with frequent headaches, and a sensation as though the top of her head were being lifted off.

Fourteen months ago she menstruated, but has seen nothing since. Thirteen months ago she had a whitlow on the middle finger of her left hand; this burst, and afterwards very slowly healed. Twelve months ago she passed a gall stone; this was attended with severe pain and delirium, lasting for three days. Her urine at this time was like strong coffee. Jaundice came on and lasted for six weeks. Eleven months ago her teeth began to loosen, with a feeling as though the gums were receding from the teeth; they gradually all came out—some she pulled out and some fell out, but at no time did they cause her any pain. The appetite at this time was very good. About the same time she noticed that her sight was getting bad, the right eye seemed to have a mist in front of it. Shortly after this the left eye also became bad. Both eyes have been steadily getting worse.

Patient was now obliged to give up work, but up to this time does not think that she was getting thinner.

Six months ago she began to waste and has rapidly lost flesh since.

Two months ago she began to suffer from constipation, and occasional attacks of severe pain in the epigastrium, with a constant feeling of soreness in this region. During the last few days the headaches have become more severe.

*On admission.*—The patient was thin and wasted, but otherwise healthy looking, with a clean bronzed skin and colour in her cheeks. The tongue was large, clean, red and dry. The abdomen was flaccid, the liver enlarged and easily felt, smooth and hard. At the sigmoid flexure a large hard mass was felt, and in different parts several inelastic rather soft nodules could be felt. These at the time gave rise to some discussion, but the balance of opinion was in favour of their being fæces, although they did not disappear after the bowels had been well opened. The Post-mortem showed that this was correct.

A resistant mass was felt in the position of the gall bladder, and there was tenderness to pressure over it.

There were no unilateral nervous symptoms: the knee jerks were absent on both sides. The right eye showed well-marked diabetic cataract in an advanced stage, and the left eye showed the same condition in an early stage. In the lens of the left eye there was a diffuse haziness, but no distinct opacities and no radiating lines of opacity.

The respiratory and circulatory systems were normal.

The urine was pale, clear, s.g. 1035, acid contained a little mucous, no albumen, and 8 grains of sugar to the ounce. The amount passed was not measured on the first day, but the quantity was large. The patient was extremely thirsty, but her appetite was bad.

The patient was too ill to diet, but she asked not to have sugar in her tea as she said she disliked all sweet things.

On the 1st and 2nd of May, there was no change for the worse, the extreme thirst continued, but in all other respects the patient felt better, the bowels were well opened. On the morning of the 3rd, it was found that the sugar had diminished to 3·3 grains per ounce, the quantity passed being 194 ounces, the s.g. being

1034. On the afternoon of the 3rd, the patient complained of headache, which in the night became exceedingly severe; it was somewhat relieved by an ice bag to the head, and after the administration of a draught of chloral and bromide she went off to sleep. During the day, there was also abdominal pain.

On the 4th, the urine was found to give the ferric chloride reaction for aceto-acetic acid, and after distilling some, acetone was found in the distillate. The patient was sick on the morning of the 4th, and the vomit was found to contain grape sugar in large quantity, but had no acetone odour. There was no albumen in the urine. The patient was rather drowsy, but easily roused and quite sensible. There was not so much pain in the head.

On the 5th, the sugar increased to 6·6 grns. to the oz., 152 oz. being passed; during the night the drowsiness increased, but in the morning she became delirious and excited and somewhat cyanosed. In the afternoon the delirium passed off, being succeeded by a drowsy condition; she could be easily roused, and was quite sensible.

The urine contained aceto-acetic acid, a large quantity of albumen (2·5 grms. per litre), and a large deposit of urates. At this time the patient was taking ext. opii. grss., ext. nuc. vom. grss., and pil. rhei. co. gr. iij. three times a day. In all she took six pills, they being omitted on the evening of the 5th. Sickness continued at intervals.

On the 6th the albumen had almost disappeared. Sickness continued, and the vomit is a yellow fluid containing mucous but very little solid material; it gives the ferric chloride reaction for aceto-acetic acid, and on distilling yields acetone. The urine also yields acetone on distilling.

During the afternoon of the 6th drowsiness increased, but on being roused patient stated that she had no pain and felt better. Urine scanty. No odour of acetone about breath. At 8 p.m. she became comatose, and the respiration assumed the typical diabetic coma character, the "air-hunger" condition being well marked. During the night the coma deepened, the pulse steadily became feebler, and the respirations shallower and slower until 11.50 on the 7th, when the patient died. Transfusion was attempted at 11.45, but on opening a vein no blood flowed, and on listening to the heart it was found to have stopped. One hour before death respiration stopped and the pulse could not be felt at the wrist, but after an injection of brandy the pulse became stronger and respiration recommenced. No urine was passed on the 7th.

After death nothing was found by the naked-eye examination, except large kidneys and somewhat large liver, small and hard pancreas, distended and looped colon, hypertrophied bladder, congested stomach, enlarged gall-bladder with thickened wall, and at one part a sloughing surface, containing several gall-stones. In the brain the puncta cruenta were unusually well marked.

The urine collected at 6 p.m., on May 5th, contained albumen in small quantity, gave aceto-acetic reaction, and distillate yielded acetone; at 12 p.m. the albumen had increased, aceto-acetic acid was present, and acetone was obtained on distillation; at 6 a.m. on the 6th, and at noon on the same day, the albumen had diminished, aceto-acetic acid was present, and acetone was obtained on distillation.

In urine drawn after death the quantity of albumen was very large. Aceto-acetic acid and acetone reactions as before.

Blood obtained after death yielded acetone on distillation.

In all cases for the detection of aceto-acetic acid I used the ferric chloride test, and I may remark that in this case, unlike the case I recorded in the paper read before the Physical Society, the reaction was no longer obtained after boiling

the urine with either acids or alkalies. For the detection of acetone in the distillate I employed both the nitro prusside and iodoform reactions.

H. J. CAMPBELL.

## DARENTH ASYLUM.

The annual visit of Guy's Students to Darenth Asylum took place on the 18th inst., when about fifteen took advantage of Dr. Beach's kind invitation and hospitality. Dartford was reached about half-past one, and the whole of us set off to walk up the hill, each with a firm conviction that he would do full justice to the excellent lunch provided on our arrival. This feeling, no doubt, was enhanced by the state of the weather, for, on reaching Darenth, we were not only wet as to our appetites, but considerably so as regards our bodies.

After a hearty lunch, which by the way had a decided soporific effect on a few, very evident in the course of the next hour, Dr. Beach began by showing us the school-room, which, at the time, was empty, Wednesday afternoon being a holiday. The method of teaching was explained, and the system of educating the special senses to appreciate form, colour, and number described. The work done by the higher classes excited a good deal of admiration, and it was evident that many of us thought that if the mental vigour was measured by the capability of doing such work, Guy's Students must certainly be in a bad way.

After leaving the school-room, we went to the Dining Hall, which at one end is fitted with a large stage, so as to serve also as a Concert Hall. Here Dr. Beach had assembled a number of the inmates, whom he called up in turn, and then directed our attention to the particular points which each presented, giving us at the same time a short account of their history. After explaining his classification of imbeciles into two classes—Congenital and Acquired—according as the imbecility occurred at the time of birth or supervened later, the points that were to be noted as giving evidence of imbecility were indicated. These are mainly the size and shape of the head, inability of the spine to support the head or body, placidity or rigidity of the limbs, automatic movements, facial aspect, development of the senses, and shape of the palate. Various examples of the different types of imbecility were then shown us, including among others several examples of Mongolian imbecility or furfuraceous Cretins, the distinctive features of which were the upward slant of the outer droop of the arch of the eyebrow, rough tongue with transverse fissures, and rough skin.

Several microcephalic imbeciles were shown us, and the circumference of their heads measured, Dr. Beach remarking that heads with a circumference of 17 inches or less, rarely showed much sign of intelligence. In contradistinction to these, several hydrocephalic and hypertrophic imbeciles were shown us, and the differences between enlargement due to hydrocephalus and that due to cerebral hypertrophy explained, the globular form of the head in the former contrasting with the square shape in the latter, the increase in size of the hydrocephalic head being most marked in the bi-temporal diameter rather than across the superciliary ridges. Another point of distinction is, that the distance between the eyes is increased in hydrocephalus.

The most interesting perhaps were the Cretins, who presented the characteristic fatty tumours in the posterior triangle of the neck and absence of the thyroid body. "Darby and Joan" were recognised immediately by some of us. Whilst on the subject of Cretins, Dr. Beach remarked, that the latest investigations tended to show that Myxœdema and Cretinism were one and the same disease, and drew attention to the broad features, facial expression, thick lips, short limbs, and spade-like hands which were present in both.

The prognosis in Acquired Imbecility, Dr. Beach pointed out, is better than in Congenital Imbecility, for the structure of the brain in the former case is probably normal, whilst in cases of the latter class there is a demonstrable difference in the number of cells and their processes, and even microscopic differences in the width of the various convolutions.

It would take too long to describe the various patients described as "Eclampsic," "Paralytic," "Inflammatory," &c., according to the known cause of their Imbecility. One practical point, however, is, that for epileptics Sodium Iodide is largely prescribed, this having, according to Dr. Beach's experience, the same effect as Pot. Iodide, without its depressing effect.

After we had seen all the patients assembled, we returned to the house, and looked over a number of interesting photographs of patients, and of several pathological specimens. Tracings of various heads were shown us to illustrate the scaphocephalic and other varieties, and the mode of taking these tracings explained.

Before concluding, we must not forget to draw attention to the extremely kind way in which Dr. Beach explained everything to us. Certainly, we spent a most enjoyable afternoon, and came away thinking that we had picked up *a few* ideas of what seemed to us a very large subject.

## A VISIT TO DARENTH ASYLUM.

By the kindness of Dr. Fletcher Beach, Medical Superintendent of Darenth Asylum, Dartford, we had, the other day, the honour of being personally introduced to a number of exceedingly interesting idiots,—one of our party, it is true, exasperated by a thunder storm which deluged us, remarked that we had plenty of imbeciles amongst our own party without getting wet through in looking for others. This was, however, prior to the cordial welcome and excellent lunch which awaited his arrival.

The invaluable practical experience which Bethlem Hospital affords us, under the tuition of Dr. Savage, cannot be overrated; but it is necessarily weak at one point, and this is most admirably supplemented by even one visit to Darenth.

We were first taught how the brains of imbeciles of the very lowest types were educated by means of impressions from without. Thus, some were set to work on a very rudimentary Chinese puzzle—a square, a circle, and triangle were cut in a board, and blocks were given to the patient to fit into these; by this means size, shape, and position were taught. Others, more advanced, learned colours in addition, by working figures in varied coloured silks. Again, exact manipulation was taught by folding paper into different devices, whilst the most advanced produced very creditable free-hand sketches. It was, in short, a Kindergarten, and very good were the results.

Next we were shown into a large concert hall, where types of nearly every imaginable class of imbecility were presented for our inspection, Dr. Beach giving us a short demonstration as each patient was in his turn brought up to the table.

There are many classifications of Imbecility, and that which Dr. Beach suggests is perhaps as useful as any. I append it for the sake of those who were unable to visit the Asylum.

IMBECILITY.

| Congenital. | Acquired. |
|---|---|
| 1. Simple congenital. | 1. Eclamsic. |
| 2. Microcephalic. | 2. Epileptic. |
| 3. Hydrocephalic. | 3. Hydrocephalic. |
| 4. Scaphocephalic. | 4. Paralytic. |
| 5. Paralytic. | 5. Inflammatory. |
| 6. Cretinism { Sporadic. Endemic. | (*a*) Hypertrophic. |
| | 6. Traumatic. |
| | 7. Cretinism—Endemic. |

I cannot remember that any of these types were unrepresented. The point which struck me most forcibly of all, was the large share heredity played in the causation of idiocy. Either there was a history of mental instability, drink, syphilis, or consanguinity in the parents of almost all the cases we saw. Amongst much valuable information, there was pointed out to us a facial eruption, said to be peculiar to certain classes of idiots; its distribution simulated closely that of "lupus erythematosus," but, in its general characteristics, it was much more like "acne rosacea," but not so greasy: it was composed of fibrous tubercles, accompanied by considerable hyperæmia of the neighbouring parts.

Perhaps the most interesting of the patients were the Cretins. Little sad Darby and Joan, aged 21 and 19 respectively, were hardly more than 30 inches in height; and poor little "Piggy," with his diminutive body and hypertrophied lips and tongue, was interesting only when viewed through the scientific lens. It was pointed out to us how rarely congenital bodily deformities accompanied congenital brain deficiency. Of the few we saw, a lofty palate was the most common, rarely however was this cleft. Two good cases of the rare condition scaphocephalism were shown us; also, some excellent specimens illustrating the difference between hydrocephalism and enlargement of the head due to hypertrophy of the brain.

It is impossible for me to detail all the valuable hints and "tips" that we received; I can only recommend all who are interested in the subject not to neglect Dr. Beach's next invitation. You will find it impossible to forget what you see there; and although you may only visit the Asylum once, yet "half a loaf is better than no bread."

A. H. W.

## DEFICIENCY OF THE MORAL SENSE.

H., æt. 17, admitted into Bethlem on May 30, 1888. Employed as a draper's assistant. Single. Cause of present attack unknown. Said to be suicidal. Of sober habits. Fairly educated. No insanity or neuroses in family. According to his father he has for some time been cunning, deceitful and plausible. Also very conceited. Masturbation admitted to family doctor. Father says that patient was never trusted by anyone at home; he was not in harmony with his domestic surroundings, but kept to himself, revealing none of his projects to his relatives. Though deficient in natural affection and strangely self-reliant for one of his years, he did not cause his parents serious anxiety until Christmas of last year, when he suddenly disappeared. They were completely ignorant of his whereabouts, and had resignedly to await his return: in due course he reappeared, but no explanation was forthcoming. They subsequently heard that he had been in London [his home was in Brighton], and, being aware that he was without means, were puzzled to know how he was enabled to make the journey and live in town. The father presently found that H. was frequently making journeys; also that he ordered clothes, and in general did not stint himself. He then suspected his son of theft, and shortly discovered that articles about the house disappeared. Being now fairly roused he made further search. Links, studs, rings and other articles of value were found in H.'s rooms. These he had cleverly stolen from his employers, whose suspicions lay dormant. When accused of theft he evinced no shame or regret. His father does not consider H. particularly clever. Says that he is unduly fond of writing, and was constantly on the scribble, covering sheets of paper with prose and verse. He lately proposed to marry a young lady, and regarded the matter seriously, notwithstanding that she laughed at him. Is not known to have been cruel to lower animals.

The certificates upon which he was admitted are briefly as follows. "Is in a state of depression, frequently contemplating suicide. Made up mind to drown himself on two occasions. Impossible to get him to regard this matter of suicide, nor the other (of robbery), seriously." "Does not appreciate the probable result of his late larceny. Says he will go on the stage assured of success, and is full of vague, ambitious schemes in regard to the future. Has given expressions to longings for death: has spoken of and threatened suicide." Admitted here, H. was not found to have any hallucinations: his memory was good. No definite delusion is mentioned.

It may be said further that he is healthy-looking and intelligent. The points most worthy of note in him from the physical standpoint, are a palate markedly narrow and arched, and badly-formed teeth. He gives no explanation of his conduct. Says he never seriously contemplated suicide. When asked if he considered the act an immoral one, replied "Yes;" and further remarked upon the grief his mother would experience should he attempt to destroy himself. He wets his bed at night; made to get up and pass water by night-watch; also threatened with a cold shower in the middle of the night; this has deterrent influence.

The two following letters are to a friend and his (H.'s) mother. "Dear Herbert,—I write to you for last time; I have stood it long enough, and can stand it no longer. I am sorry to leave you and other friends, but I am glad to be able to break my connections with our family. I think it will be better not to act rashly in Brighton, but to resign my hand at shooting till I leave here. My days and hours are numbered. Wishing you success in your mission I must now close. Think no more of me. I would have fought this battle had there been any hope of victory, and as there is no hope I must retreat, for I dare not stay to lose. Good bye, Herbert, good bye. Do not mention my name, but remember me to all. Lost, lost, lost.

"There are not acts of pardon past
The cold grave to which I haste;
But darkness, fear, and long despair
Reign in eternal silence there."

"Love in death.—H."

"Dear Mother,—By the time you get this, I shall be beneath the waters. Good bye all.—H."

During his stay at Bethlem he has been convicted of various petty thefts. Has plausible excuses for his behaviour, and is not at all abashed when found out.

In cases such as the above we have exhibited some early results of congenital mental defect. There is not much upon which to write certificates sufficient to consign an individual to an asylum, and though it is possible that transient benefit may accrue from his residence here, it is extremely improbable that any permanent good will result. Although a neurotic history is absent, such early evidence of moral obliquity, taken in conjunction with the configuration of the palate, augurs badly, in the opinion of those competent to judge, for the patient's future. I may say that Dr. Savage's opinion is that H. will become either weak-minded or criminal. It is not inevitable that in such cases there should be intellectual defect; the intellect may attain the average standard, or—to quote Dr. Maudsley — there may be "some intellectual acuteness of a low order." That great capacity may exist with low degree of moral sense is notorious. Returning to the case in hand, it is quite possible that in the future, when H.'s ambition takes a bolder flight, when from petty larceny he proceeds to crime, cunningly contrived and boldly executed, his acts will be attributed not so much to madness as to badness, especially as he will probably labour under the misfortune of being able to distinguish right from wrong. It is perhaps unwise deliberately to oppose to each other the terms "madness" and "badness;" each is apt to be thought of as excluding the other. What the alienist humanely contends for is, not only that a man may be bad and at the same time mad, but also that the badness is dependent on the madness, is the essential, expressive feature of it. There is no need, however, to pursue so well-worn a theme.

In conclusion, I may be allowed to dwell upon the cheerless prospect which a case such as the foregoing presents. Starting life with an inherent mental defect, a "twist," which forces him to view matters in a light distorted, coloured, and peculiarly his own, for him to struggle against the decree already pronounced is useless, even were he encouraged to that end, or desirous of it. If affection, sympathy, gratitude, or other kindly attributes of our nature do not appeal to him, or if, appealing, they yet yield before an insatiable thirst for self-aggrandisement and advancement, there is no room for wonder; and if crime be committed in order that the coarser appetites may be satisfied, to what purpose should we lift up our voice and cry, "Away with him;" unless, indeed, we refer to the seclusion of an asylum?

In fine, such an individual will wend his way, not over-burdened with conscience or scruple, his motto—self.

E. G.

## RESULTS OF EXAMINATIONS OF CONJOINT BOARD.

### MEDICINE.

| | |
|---|---|
| Langridge. | Tresidder. |
| Bremner. | MacIlwaine. |
| Dugon. | Pendlebury. |
| Woodhams. | Keiffenheim. |
| Williams. | Edwards, H. W. |
| Robertson. | Shells. |
| Pennell. | Wilson Smith. |
| Parkin. | Kemp. |
| Legg. | Thorpe, W. G. |
| Hosking. | |

### MIDWIFERY.

| | |
|---|---|
| Rygate. | Parkin. |
| Clowes. | Hosking. |
| Baines. | Ward, J. |
| Langridge. | Tressider. |
| Bremner. | Dodds, Price. |
| Woodhams. | Edwards, E. W. |
| Williams. | Marshall. |
| Robertson. | Shells. |
| Blachford. | Thorp, C. |
| Pennell. | |

### SURGERY.

| | |
|---|---|
| Hosking. | Mossop. |
| Bremner. | Tebb. |
| Parkin. | Roberts, J. W. |
| Paget. | Norburn. |
| Joslen. | Pennell. |

We have had some difficulty in making out the list, and regret any inaccuracies that may be present.

# Passim.

Strange ideas are evidently abroad about the Hospitals, as the following letter, received by a Resident, will testify. The letter ran—

"I have been informed that authorities of London Hospitals buy, for the purpose of dissection from living persons, their bodies after death. Will you kindly say if this is correct? if so, I am willing, for a consideration, you should have my body after death.

'I am Male, 43 years of age; for 20 years have suffered with chronic stricture, and have now every reason to believe I have a large stone in the bladder, as I can distinctly feel the bougie grate against it every time I use it, which is several times a day. I have not slept more than 1½ hours at a time for upwards of 10 years, and never go more than that without passing urine. If you do not require what I have offered, do you know, or can you advise me any one who does?"

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The new "Green Book" has just appeared, and we notice several alterations in it especially in the Lectures and Practical Courses. Mr. Durham and Mr. Howse will lecture on Surgery, whilst Mr. Jacobson and Mr. Symonds take the Practical Surgery. We are pleased to see that Mr. Jacobson will also take the Operative Surgery. Under these headings it will be seen that various alterations have been made. Considerable changes have been made under Morbid Anatomy and Physiology in the lectures and general arrangements, owing to the increased facilities for teaching these subjects.

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We congratulate Miss Nott Bower (Sister Dorcas) on her appointment as Matron to the Huddersfield General Infirmary. Miss Oxford (Sister Ruth) becomes Sister Dorcas, and Miss Oldham takes Miss Oxford's place as Sister Ruth.

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We regret to see that the Junior Charity is likely to be much occupied this month, as at present there are no Externs.

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Apropos of our notice last week of the examination of the Medico-Pyschological Association, we are glad to congratulate Mr. E. L. Goodall, Clinical Assistant at Bethlehem and late House Physician of Guy's, upon his having passed the examination recently held.

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In another column will be found an article by Mr. Whitby on Public Dispensaries, which we feel confident will be read with much interest, and we hope that other "old Guy's men" will follow his example, and furnish us with articles on the special branches of practice to which they have devoted themselves.

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The next number of the Gazette will be issued on the first Saturday in September.

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## RESIGNATION OF DR. SAVAGE.

It has lately been announced that Dr. Savage is about to resign the post of Superintendent at Bethlem Royal Hospital. Such an event should not, we think, be allowed to pass without a word of comment in the Gazette, which chronicles, so far as is possible, items of interest to Guy's men. As regards a matter in which students are more particularly concerned, we believe it is certain that Dr. Savage will continue to lecture on Mental Diseases, and illustrate his lectures in the wards of Bethlem as usual. This is a great satisfaction to us, and will doubtless prove the same to the numerous admirers of Dr. Savage's brilliant and impressive lectures on Insanity. We trust that in the future, as in the past, Guy's men may enjoy and benefit by the vivid word-painting, the suggestive analogies, and the happy "visualising" (to use Dr. Savage's own term), which have co-operated with the interest of the subject in making a visit to Bethlem one of the most fascinating features of the Student's curriculum.

# Hospital News.

## INTERESTING CASES.

CHARITY.

1. Lipoma of lumbar region.

DORCAS.

11. Suppurating ovarian ?
14. Extra-uterine fœtation.
16. Abdominal tumour with ascites.

JOB.

15. Gonorrhœal pyæmia affecting metacarpo-phalangeal joint of thumb and elbow joint.
13. Extreme anæmia, with bruits, due to loss of blood from piles.

LYDIA.

10. Nævo-lipoma.
11. Growth in antrum ?
17. Condyloma or epithelioma of anus.

LUKE.

3. Double tubercular testicle with hydrocœle.
15. Pyœmia with multiple subcutaneous abscess.

NAAMAN.

6. Removal of loose cartilage from knee joint.
22. Excision of upper jaw for extensive sarcoma.

JOHN.

3. Chronic diarrhœa, ? tubercular, treatment.
7. Intermittent hæmaturia, tenderness of limbs, obscure swellings, ? purpura.
11. Tuberculosis.
13. Hæmaturia, sciatica.
16. Potash poisoning.

MIRIAM.

27. Typhoid, anæmia, rigors.
29. Præsystolic.
30. Hysterical aphonia.

STEPHEN.

1. Chronic diarrhœa, jaundice hyperpyrexia, pylephlebitis.
5. To and fro aortic.
8. Pleurisy, phthisis.
13. Leprosy, laryngitis, tracheotomy.
19. Hammerman's palsy.
35. Thoracic aneurism, obliteration of arteries.
37. Perityphlitis.

MARY.

5. Osteo-arthritis.
10. Lardaceous liver.
46. Unilateral œdema of leg.
47. Typhoid.

Cots. Infantile paralysis.

19. Abdominal growth.
25. Osteo-arthritis.
29. Hysterical paraplegia.

PHILIP.

1. Hydronephrosis following injury to kidney.
8. Growth in stomach affecting pylorus.
13. Paralysis of right arm and right side of face.
19. Right hemiplegia (complete).
39. Plumbism, double wrist drop.

## PUBLIC DISPENSARIES.

When the time draws near for severing our connection with the great hospital at which we have received our medical education, most of us are more or less perplexed what to attempt next. I believe that those who have had to solve this problem for themselves, and have solved it more or less successfully, would render a great service to their junior colleagues by giving some account of the difficulties they have had to contend with, and the conclusions their experience has enabled them to form. I purpose, therefore, to give a brief account of my own impressions derived from a three-months' residence at one of the largest of the institutions referred to as the heading of this article. I shall try to be as impartial as possible in what I have to say. Life at a public dispensary, it is needless to say, is by no means "all beer and skittles." The work, while it lasts, is hard, perhaps harder than that of a resident of an average-sized provincial hospital. It consists here of three different departments—viz., daily visiting, casualty-work (for the man on special duty for the 24 hours), and the seeing of patients at the institution; at stated times, as in the out-patient rooms at Guy's. Here I have out-patient days three times a week, and on the average see 25 new patients every time. At some dispensaries this is done by the honorary medical officers. Here the three residents have the entire management of their patients, and this, though it means more work, I consider an advantage. The visiting is generally considered a great drawback to such appointments as I am describing, and it is, of course difficult to treat cases as scientifically as one would wish, in such miserable surroundings as are usual in our class of practice. Here, however, we have the advantage of being able to obtain the service of trained visiting nurses for all suitable cases, a boon which it is impossible to over estimate. In many cases we obtain through the nurses for our poor patients the substantial benefits of a generous diet. Some of our best cases are those we attend in this way at their own homes, and a fair proportion of them are respectable working people, reduced to poverty by prolonged sickness or lack of employment.

Every third day here is my day of special duty, and this leads me to the consideration of the special features of the casualty department. Most of these patients are of a very low order in the scale of humanity. By far the majority of them are confirmed drunkards, and the commonest injury is every variety of scalp wound. Stabs are also very common, especially so in Liverpool—the well-named "black spot on the Mersey" of newspaper literati. Every variety of fracture and dislocation abounds here, and one has to be constantly prepared for all kinds of surgical emergencies, especially retention of urine and hæmorrhage.

This department of dispensary practice is especially valuable to those who have not been fortunate enough to hold the senior appointments at a large hospital—such

as those of full surgeon's dresser (at Guy's) or house surgeon at the other London schools.

In our out-patient practice (what is so-called at large hospitals), we meet with all variety of cases, medical and surgical. Of course, a very large majority of them are infantile affections, and such common diseases as bronchitis and dyspepsia; but one soon acquires the habit of dismissing these with a stock mixture, and so reserving one's time for the investigation of more obscure cases.

This brief account may serve to give some idea of the sort of work expected at this class of institution. I may state that although the three residents at the particular dispensary I refer to attend about 30,000 patients per annum, the hours of work are by no means excessive. Here I am, as I have stated, on duty for the 24 hours once in every three days, including Sundays; which latter are complete holidays on the off days. On the other two days, I finish work at 12.30 or 3.30 according as it is my day for seeing out-patients or not. The home-life here is very pleasant, as I am particularly fortunate in my colleagues. We have an agreeable matron who caters for us excellently, each has his separate set of two rooms, and are altogether well cared for. There is a porter here who is equal to dressing any ordinary wound, and we do none of the dispensing.

I must not forget to mention one of the most valuable privileges of a dispensary practice in a large town. This is the opportunity afforded of obtaining considerable medico-legal experience. Police cases, coroner's inquests, sessions and assizes are constantly cropping up, and the proceeds of our services in this direction form a very respectable addition to our income.

The worst feature of these appointments is the undeniable fact that one has in the casualty department to deal with the very lowest types of degraded humanity. The casualty visits are also a nuisance, but with ordinary tact they can often be avoided, and when absolutely necessary are seldom far from the institution. I would never take a dispensary appointment where midwifery was one of the duties. Here we do none whatever, except that occasionally we are called in by midwives to attend post-partum diseases and abortions. These, however, are rare, and, moreover, very valuable from a clinical point of view.

If I have done anything to remove a certain vague feeling of prejudice, which undoubtedly exists with reference to such appointments, I shall be well contented. I can conceive no more snobbish or contemptible idea than that which brands a man with a certain professional or social stigma, because he happens to be what is called a "dispensary doctor." The essence of this idea is the implied principle that a man's position in our profession depends upon the class of patients with whom he has to deal. It is too narrow and bigoted to require refutation.

I should say that the chief value of a dispensary appointment is this (and it is an important one to those about to enter upon general practice, especially in country districts)—that it teaches one how to deal with cases under sometimes most unfavourable circumstances, and so tends to foster and develop that power over disease which Moxon distinguished as the *art* (opposed to the *science*) of medicine, a quality perhaps more indispensable to successful practice than any other which could be named.

## NOTES ON PATHOLOGY.

By Dr. R. E. Carrington.

*(Continued.)*

### CEREBRAL HÆMORRHAGE.

Blood may be extravasated within the cavity of the skull in four situations:—

*a*. Between dura mater and bone.

*b*. Arachnoid cavity.

*c*. Substance of brain.

*d*. Venticles.

(a.) Between dura mater and bone hæmorrhage is generally the result of accident, and is usually accompanied with fractured skull and rupture of middle meningeal artery.

(b.) Into the arachnoid cavity it may result from—

*a*. Hæmorrhage into the brain bursting into it.

*b*. But true cases of arachnoid hæmorrhage occur in—

(1) Whooping cough.

(2) In children, the result of difficult labour.

(3) In adults, the result of chronic bronchitis.

The blood is supposed to come from ruptured vessels passing between dura and pia mater.

(c.) Into the substance of the brain. This may occur in any part, but the most common is the corpus striatum. According to Charcot there is an artery which runs through this body, and which is particularly large and unsupported, and which is the source of hæmorrhage. "The artery of cerebral hæmorrhage."

*N.B.*—In cases of cerebral hæmorrhage, the extravasation is not unfrequently multiple—that is to say, if there be *one* large cerebral extravasation there may be smaller ones in other parts, and probably the most frequent seat of the secondary extravasation is the "pons."

The question is often raised as to which is the primary lesion. It may be that all are simultaneous; but this is not likely, on clinical grounds or as a matter of probability, and therefore the view that in the case of an individual with bad arteries the great disturbance of cerebral circulation, due to the considerable extravasation of blood in one part, probably does account for extravasation in other parts.

The clot of fatal cerebral hæmorrhage varies up to ʒii.

*Causation.*

Charcot's view of the causation is that cerebral hæmorrhage is due to the rupture of minute aneurysms (miliary aneurysms). The first step in the process is inflammation of the outer coats of the artery, leading to atrophy of the muscle of the middle coat, and subsequent yielding of the arterial wall. ("Path Trans.," 1888.) Whether these aneurysms are always present in

cerebral hæmorrhage is a question of considerable doubt. But that they do occur is certain. They are, no doubt, identical with the arterio-capillary fibrosis of Gull and Sutton.

Another well-ascertained cause of cerebral hæmorrhage is *embolism*. Under the condition that the embolus is derived from a source of suppuration, *i.e.*, practically ulcerative endocarditis. The embolus becomes impacted at the point of bifurcation of an artery (left middle cerebral), and sets up ulceration in the coats of the artery and subsequent perforation.

Another cause seems to be *syphilis*, which leads to disease of the cerebral arteries (Heibner, and is named after him).

(*a.*) It is limited to the vessels at the base.

(*b.*) It consists of proliferation of nuclei in the inner coat, which subsequently becomes converted into fibrous tissue. Thus it leads to narrowing of the calibre of the artery, and generally, thrombosis; and probably now and then it may lead to rupture.

Another and very common cause is chronic Bright's disease, leading to atheromatous disease of the arteries. Arterio-capillary fibrosis (Gull and Sutton). Periateritis and miliary aneurysm (Charcot).

*The effect* of a recent hæmorrhage is, of course, more or less destructive of the brain substance. If not rapidly fatal, the extravasated blood becomes gradually absorbed. The colouring matter changes, by which the colour is altered from that of recent blood to brown or a brick-red.

*N.B.*—The discovery of these patches of discoloration is the most frequently found evidence of cerebral hæmorrhage. *Apoplectic cysts* are far less common. In some cases the blood is completely absorbed and a cyst is formed, the walls of which consist of sclerosed brain material (*i.e.*, connective tissue becoming fibrous), and which contains a clear fluid. The cyst is often traversed by strands of connective tissue. It is believed that such a cyst may be formed in six weeks. But there is no doubt that hæmorrhages of years' standing may be revealed by brownish discoloration. Hæmatoidin crystals are found in such discolorations.

## CEREBRAL SOFTENING.

Several forms are described.

*Red softening.*

Effect of embolism. Cerebritis around hæmorrhage. Traumatic abscess of brain.

When a cerebral artery is blocked up by an embolus, the result is not anæmia of the embolised area, but hyperæmia. This is supposed to arise because these arteries do not anastomose. The arterial wall beyond the embolus has its blood supply cut off, and in consequence it dilates passively. This creates negative pressure, and blood rushes backwards, from the veins through the capillaries and with such force as to cause hæmorrhage. The result is, brain tissue is broken up, small extravations occur, and, further, the brain tissue undergoes degeneration; a constant proof of which is the presence of *compound granule cells* (corpuscles of Gluge). These are large cells full of oil globules which by transmitted light show as black dots, and the whole corpuscle is likened to a mulberry.

*N.B.*—These corpuscles form the "only certain evidence" of true softening of nerve tissue.

Red softening may take place very quickly after embolism; certainly within 24 to 36 hours.

*Yellow softening* takes place after a time. The extravasated colouring matter of the blood in red softening undergoes changes, one result of which is that it becomes of a yellow-ochry colour. Therefore one form of yellow softening is—

*a.* Further stage of red (granulation corpuscles found).

*b.* But around tumours or clots the brain substance is often yellow and somewhat soft. This is only œdema. There is no destruction of nerve elements nor are granulation corpuscles found.

*White softening.*

True white softening is met with in aged persons with diseased arteries and feeble hearts. Possibly in such persons there may be a slow thrombosis of the diseased arteries in addition. The result is that a variable extent of brain substance undergoes slow degeneration and softening. Compound granulation cells are met with. The probable actual cause is slow starvation of the nervous tissue.

White softening in meningitis. (See Meningitis.)

The brain substance in the neighbourhood of the lateral ventricle becomes soft, but still the colour remains unaltered. This is especially the case in the Fornix and the corpus callosum, which become quite diffluent. This also is œdema, no destruction of nerve elements occurs, and no granulation cells are found.

The important forms are—

Embolic red softening.

True white softening.

Owing to the imperfect anastomosis of the cerebral arteries, the prognosis as to recovery is more grave than in the destruction of the brain substance, the result of hæmorrhage.

*(To be continued.)*

## THE CROYDON CONSULTANT.

In turning out one of the cupboards in clinical room the other day, I came across a greasy paper containing the remains of a couple of ham sandwiches, one of them with a large semi-circular piece bitten out of it. This irresistibly called to mind the homely features of our former constant visitor—that earnest seeker after truth, the Croydon Consultant. The wrapper containing these relics turned out, to our great joy, to be a letter which our fossilised friend had written but not posted to a brother practitioner in the country. We venture to think that a few extracts from it will show the amount of success he achieved in his earnest quest:—

"I have been spending a most instructive and agreeable week in looking over this hospital. The other day I visited a small building standing by itself in the

grounds, which I had often heard of as containing the most interesting cases, where I was greeted by a charming body of young men who evidently had not only accumulated knowledge themselves but were quite willing to impart it to an old fogey like myself. They showed me some extraordinary cases, which I understand have not been published, and which I think will interest you. The first was one of a man aged 46 who had had acute suppression of urine for fourteen days. The treatment to my mind was new; it consisted in intra-uretal injections of castor-oil; the result was entirely successful, but the extraordinary thing is that ever since the man has passed bright blue urine. This the intelligent clinical assistant showed me a specimen of, remarking that it was due to a hyper-secretion of indican. I was then shown a case of Addison, the pigmentation of which had been almost entirely removed by 5-grain doses of hypochlorite of lime every four hours. They also showed me a thin cylinder of bony material which had been passed per anum by a man who, I was assured, had been suffering from ossification of the rectum; this was supposed to be the last stage of a diphtheritic inflammation.

"There was another case, the particulars of which I have forgotten; it was something obscure, so they called in the surgeon, who on making an exploratory incision found jaundice, which somewhat cleared up the diagnosis. They told me of a case of varicocele of the aorta, with a peculiar trombone-like bruit to be heard in the abdomen, but this case had unfortunately gone out. There was a man also with a very large scrotum, which I at first sight thought due to Bright's disease, but which my young companion explained to me to be due to hydatid of the scrotum, adding that the most interesting fact about the case was that his wife was at that time in the female ward, passing portions of tape worm, thus affording a good illustration of cause and effect.

"After a few more cases of minor interest, I was invited to take afternoon tea; and had an opportunity of examining the complicated apparatus which they use for the estimation of the various constituents of the urine. I was told that the bromine solution used was very expensive; 'and,' said my young informant, 'owing to the present financial difficulties of the hospital we try to economise as much as possible; in fact, you have just arrived in the midst of our bromine harvest. The bark of the branches you must have seen lopped off the trees in the park is by an ingenious process converted into this solution in our own laboratories.' How wonderfully the science of chemistry has increased since you and I went in for our L.S.A. at Dublin long years ago! I was then taken back to the ward by the same gentleman to see a case which was not quite prepared to be examined previously. I was asked to listen to a man's left lung, where they told me there was a peculiar sound to be heard (between ourselves, I never heard it), but they told me that it was a hitherto undescribed sound which had been called a 'stony click,' and which they said the physician thought was due to a peculiar calcareous degeneration of the lung tissue which might be termed the Portland Granite formation. The diagnosis, however, had been cleared up by the man one day having a convulsive cough during which he expectorated a number of small carpal bones, showing, extraordinary as it may seem, that he was suffering from Lithopædion of the left lung. To meet the exigencies of this unparalleled case they had ingeniously contrived a bronchial catheter with which they hoped to dissolve it by injections of nitric acid. I was, unfortunately, unable to examine this instrument, as it had been taken back to the instrument makers for improvement. I mean to take careful note of this case so as to let you know more about it. In conversation afterwards I found that these young men even made a study of animal pathology in order to be able to throw light on some of their more obscure cases. What struck me most in their collection of facts was a case of hemiplegia occurring in a snake and accompanied by conjugate deviation of the eyeballs."

## REST AND PAIN.

*(Continued.)*

To a great many the word Rest is synonymous almost with "sleep," and a short consideration of the Rôle of Sleep in health and disease will not, I venture to think, be out of place here.

All animals possessing well-marked nervous systems must have periods of sleep. These latter are characterised by the cessation of the automatic activity of the brain—"they are the diastole of the cerebral beat" (Foster). In the deepest sleep the mental processes are in almost complete abeyance, and the subject becomes almost like an animal without its hemispheres (Landois), the cardiac and lung rhythms slow, this change being owing to the diminished general metabolism. The immediate causes of sleep are unknown—obviously enough, sleep is the result of exhaustion of the system, and is its means of repair. But "we do not understand the train of circumstances which culminate in sleep," whether an anæmic condition of the brain, or an accumulation of refuse products enough to stop the cerebral activity, and so allow sleep to supervene (Foster).

But this we *do* know, "that repose in sleep is necessary to the well-being of mind and body, that is, to the healthy performance of its functions, by every distinct organ or set of organs." Sleep lessens the waste of nerve force and tissue change, its check to chemical activity is undoubted, else how could the hibernating animal live? Sleep does not itself restore the body, but it places the body in the best position for nature to exercise her healing tendency with the least amount of resistance. Sleep prevents disease, and often cures it.

Speaking of operations, Sir James Paget writes:—"If a man can sleep long at a stretch, *he* is a good subject for operation," and he gives the following instance where sleep undoubtedly saved life. The patient was a bargeman, and he was operated on for hernia. "He was

young and dull-witted and overworked, and in his ordinary life was always sleeping, when not working or feeding. After the operation he went to sleep, and slept 16 hours out of the first 24, and scarcely a less proportion of the next few days, and he recovered, although suffering from acute peritonitis, for which I thought it necessary to put on nearly a 100 leeches!"

Turning now from sleep, let us consider the power of rest in an over-worked brain. Here we have an organ whose delicacy of texture, quality of metabolism and whose all important functions require rest above all other organs. It *must* have repose, and obstinate insomnia "often is the first sign of a general break down of the nervous centres."

Anyone reading Francis Darwin's "Life of his Father," must be struck by the fact, that while the most wonderful inductive intellect of this century lost its interest, as it grew old, in music and painting and poetry, it still found the greatest rest and pleasure in listening to hundreds of three-volumed novels from a circulating library. Charles Darwin himself says "I bless all Novelists."

With regard to inflamed and wounded parts, every movement must act on the one hand like a continuation of the irritating cause, and on the other as a repetition of the original injury. "Rest is not merely a negative advantage as saving from irritation, but a positive one, as diminishing body heat and alleviating pain." Local rest is thrust before our eyes every time we witness the "vital anchylosis" of an inflamed joint, where the process is obviously to prevent further injury and friction. This leads us to speak of the value of rest in treating *wounds*.

It is impossible to do more than make a few remarks of a general character on this important subject. To begin with, *Nature* does the work of curing wounds, the Surgeon's duty being merely to so alter and mould the conditions that Nature may work with the greatest advantage. What is "Nature?"

To me, Nature is the mysterious power, the unseen influence, the directing force, which silently, often imperceptibly, yet ever powerfully, rules over, controls and guides our universe. Left to herself, she always tends towards cure—a foreign body floats off the eye; a foreign body ulcerates out; a joint when diseased anchyloses; hæmorrhage always has a tendency to stop—Nature's surgical efforts are wonderful.

*(To be continued).*

# Sport.

## CRICKET.

The Second Eleven, which was started last year, has just completed its season, which has been a little more successful than last year's. Out of fifteen matches on the card, four have been won, five lost, one drawn, and the rest scratched. The same difficulty in getting together the team has been found as there was in the first eleven, on one occasion ten out of the eleven names on the list being scratched. In the batting averages, Steele stands a long way ahead, and next to him Jewell and Wilks have been most successful. The bowling has been very weak indeed, and the same with a few exceptions may be said of the fielding.

Batting Averages.

| | Total runs. | Highest innings. | Times not out. | Average. |
|---|---|---|---|---|
| W. K. Steele | 231 | 80 | 1 | 25·6 |
| W. H. Jewell | 70 | 32* | 1 | 10 |
| H. L. E. Wilks | 81 | 22* | 2 | 10·1 |
| T. H. B. Yorath | 27 | 16 | 0 | 9·7 |
| E. J. Budge | 21 | 6 | 0 | 3·5 |
| T. G. Stevens | 45 | 19 | 0 | 7·5 |
| H. S. Archdale | 60 | 27 | 0 | 12 |
| C. Pratt | 15 | 4 | 1 | 3 |
| R. L. Wason | 19 | 11 | 1 | 9·5 |
| W. E. S. Cobb | 14 | 12 | 0 | 3·5 |
| J. W. Jewell | 16 | 10* | 1 | 8 |
| H. W. Webber | 37 | 12* | 1 | 5·2 |

* Signifies "not out."

Bowling Averages.

| | Overs. | Runs. | Wickets. | Average. |
|---|---|---|---|---|
| Yorath | 53 | 64 | 17 | 3·7 |
| Henderson | 30 | 69 | 10 | 6·9 |
| Culmer | 50 | 111 | 14 | 7·9 |
| Tuck | 29 | 77 | 6 | 8·3 |
| Wilks | 52 | 77 | 6 | 12·8 |

## ROWING.

The Boat Club still exists, thanks to the energy of its supporters. On Saturday a crew was sent to Molesey Regatta for the Junior Fours, and to judge from the form usually shown in such races, they certainly ought to have won, but they didn't; on the contrary, they distinguished themselves by finishing a very good last: one clear length from the winning boat, and half a length behind the second.

Their excuse is that they rowed in a boat for which they gave £5 only, that they had the outside station on a curved course, and got a bad start. That they started badly is dreadfully true. We never saw a crew start worse. Kingston, who eventually won, had completed three-quarter length before Guy's were moving, and when our men were off, with some pace it is true for a time, we saw nothing like a good spurt the whole race through. The rowing was poor compared with what we have seen in practice, and the crew are obviously not yet accustomed to rowing breast races on a course so meandering as that at Molesey. They looked to us as if they were "underboated," a condition with which fast rowing is absolutely incompatible.

The regatta itself was a beautiful sight, the river being graced—almost to the discomfort of those competing—with bright frocks and red parasols. while on a river-side lawn, lent to the regatta committee by a lady resident, refreshments were laid out, and bands played for the enjoyment of visitors, the competitors and their friends.

The boat was bought the Wednesday before the race, so there was hardly sufficient time for the men to get used to her. We are requested to state that this venture cost the crew £10, and we entirely sympathise with them when they complain of the large sums of money annually collected for the Athletic Sports, while to appear in public the boat club has to depend on those who represent it, not merely to defray the expenses of racing, but even to purchase a tolerable craft to row in.

On this occasion, E. M. Pilcher was captain and stroke, and Durham occupied his original seat at bow, otherwise the crew was unchanged.

**Guy's Hospital Gazette,**

*SEPTEMBER 1, 1888.*

## CASE OF INTUSSUSCEPTION. INFLATION—RECOVERY.

On the afternoon of August 12th, 1888, I was called to see a little boy, E. A., ætat 4, who was said to be in great pain. The history given me was, that he had seemed a little out of sorts during the past week, but had not been in any way ill. In the morning he suddenly complained of "bellyache," which, however, was only momentary. He ate a little breakfast (bread and butter and milk), and immediately vomited violently. Since then he had had paroxysmal attacks of pain in the abdomen, and had vomited violently whenever anything was given by the mouth (he was only given milk and water). Shortly after breakfast he went twice to the closet; after that he was put to bed. He was constantly getting out of bed to try and pass a motion, but only succeeded in passing some blood and mucus. I saw him first at 5 p.m., a healthy-looking, well-made little boy, and intelligent. He was lying in bed on his back, and was extremely restless. Every now and then he would suddenly cry out and complain of "bellyache." On examination (in the interval between two attacks of pain) the abdomen felt quite supple. There was no marked distension and it moved freely on respiration. A "sausage-shaped" mass, about 2 inch by $1\frac{1}{4}$ inches, could be felt lying transversely across the upper part of the abdomen in the position of the transverse colon; its right end was about 1 inch from the middle line. It was evidently due to something in the abdomen, and not to a contraction of the rectus, as the abdomen was perfectly supple at the time. He had not been seen to pass any urine all day; he may, however, have done so on his visits to the closet. The bladder was not distended. The rectum contained blood and mucus. Chest perfectly normal. He was extremely thirsty and perpetually crying out for drink.

Ordered—

℞ Tinct. opii. ♏ ii,
Aq. ʒi. } every 4 hours.

9 p.m. Patient now seemed slightly exhausted; his eyes were somewhat sunken. He had vomited after taking the medicine, and every time he had anything to drink, the vomit was clear and of a bright yellow colour; it had no offensive odour. Since I last saw him he had been constantly striving to pass a motion, the only result being blood and mucus, amounting in all to about ʒ fs. On examining the abdomen, the "sausage-shaped" lump was found to have moved more to the left, so as to lie partly under the ribs, with its left end tilted a little upwards—*i.e.* in the position of the splenic flexure. The paroxysms of pain had been frequent.

I administered chloroform, and then inflated the bowel per rectum, being careful not to produce extreme distension. The lump disappeared.

On recovering from the effects of the chloroform, he had an attack of pain and passed a little more blood and mucus. He was rather restless throughout the night, but there was no more vomiting or tenesmus. At 4 a.m. he was given tinct. opii. ♏ ii., which he retained. He passed some flatus during the night.

Aug. 13, 10 a.m. Patient extremely thirsty (he had had *absolutely nothing* by the mouth during the night). The eyes no longer seem sunken, but he seems rather sleepy. *No lump* could be felt in the abdomen, although it was not distended. I gave him inj. morph. hyd. gr. $\frac{1}{16}$, and ordered him to have ice in very small pieces to suck occasionally.

5 p.m. Patient quieter but extremely thirsty. Began feeding with milk very slowly, about ♏ xx. at a time, at intervals of two minutes.

10 p.m. Since 5 p.m. he has taken about ʒ v. milk. There has been no vomiting, pain, or action of the bowels. No lump can be felt in the abdomen. Inj. morph. hyd. gr. $\frac{1}{16}$.

Aug. 14, 10 a.m. Patient better. T. 99.4. Increased the quantity of milk he was having, and ordered soda water also to be given in small quantities.

5 p.m. Patient comfortable; the bowels have acted slightly; motion greenish; no blood. Has taken Ofs. milk and some soda water since the morning. No pain or vomiting; no lump could be felt. T. 98.4.

Aug. 15, 10 a.m. Patient very hungry and anxious to get up. In the afternoon he got up and had two slices of bread and butter by way of tea.

Aug. 16. Passed a copious healthy motion this morning; no blood. Has had during the day a boiled egg, some corn flour pudding, and bread and butter, the chief article in his diet being still milk.

My reasons for recording this case have been—

1. That the last case of Intussusception recorded in the GAZETTE was one in which inflation failed.

2. I found that there was a decided scepticism as to the value of inflation in the minds of the present residents, some even asserting that inflation merely rendered impalpable the intussusception by the abdominal distension which it produces, but that it does not really reduce it. There can be no doubt, I think, that the foregoing case was one of Intussusception (the concurrence of pain, vomiting, tenesmus, and passage of blood and mucus per rectum, with a "sausage-shaped" lump in the abdomen which changed its position, are surely enough for a diagnosis). I have also been careful to note that no lump could be felt when the abdominal distension had subsided.

The study of this case, and of a few others that I have had the fortune to see at different times, leads me to submit the following remarks:

1. That the bad results obtained in Hospital practice are due in a large measure to the cases being only brought to the Hospital as a *dèrnier ressort*, either the parents having neglected the symptoms, which may be slight, or the medical man not having taken the trouble to examine the case, and having been content to treat it as diarrhœa or colic.

2. That inflation (under chloroform) is easy and effectual when applied early.

3. That where inflation fails injection of liquids should not be resorted to, but that abdominal section should be performed at once. A moment's consideration will show the danger of injecting an *incompressible liquid* instead of an *elastic gas* into the bowel.

R. M. HENRY RANDELL, M.D.

Beckenham, August, 1888.

## NOTES ON A CASE OF GASTRIC ULCER.

E. K., æt 56, married, was admitted into the Bolton Infirmary on May 19th, 1888, for an irreducible inguinal hernia.

She has had a rupture on the left side for seventeen years, and in June, 1887, whilst carrying a pail of water, a hernia appeared in the right inguinal canal. From that time she wore a double truss until sixteen weeks ago. About this time she commenced to suffer from sickness and a burning pain in the epigastrium; this has continued on and off until the present time. On the evening before admission, the rupture on the right side came down and could not be reduced.

*On admission*, patient complained of pain in the abdomen, constipation and slight vomiting. In the right groin was a hard lump, rather tender to the touch, giving slight impulse on coughing.

On May 23rd, the tumour was cut down upon and the knuckle of intestine, which was slightly

congested, replaced. There were adhesions at and about the internal ring.

May 24th. The bowels have acted slightly four times. Wound looking well, but patient complains of general abdominal pain and has vomited a little.

May 29th. The abdominal wound has healed over. There is still pain over abdomen, more especially at upper part, and a little below the ensiform cartilage an ill-defined tumour can be felt. The bowels act slightly every day.

June 4th. The motions are hard and black, which cannot be accounted for from any medicines the patient has taken.

June 5th. Early this morning patient became very faint and vomited ʒvi. of pure blood; after this she appeared very blanched. The abdominal pain was now chiefly on the left side, where there was considerable fulness, dulness and tenderness.

At 2 a.m. on the 6th, patient vomited ʒx. of fluid, chiefly blood, and by 4 a.m. she had brought up ʒxxij. of blood. She became extremely anæmic, but remained conscious. On examining the abdomen, the fulness on the left side had disappeared. The pulse at the wrist could not be counted. Patient passed a quiet day, but suffered from extreme thirst and headache.

June 8th. Patient complains of a good deal of pain in the back. There is epigastric pulsation. From this date up to August 6th patient vomited no more blood, but suffered a good deal from constipation, nausea, flatulence, pyrosis and occasional vomiting. There was always abdominal pain present, varying in degree from day to day, and on palpation the abdominal tumour had not altered in character. Patient slept but little, her sleep being constantly disturbed by bad dreams.

No sarcinæ were at any time detected in the vomit, the urine never contained any albumen, and patient did not lose flesh.

On August 7th, patient complained of feeling very faint during the evening, and at 1.30 a.m. on the 8th she told the nurse that she felt exactly as she did on June 5th, when she vomited the blood. At 2 a.m. patient was dead and her upper extremities quite cold.

*At the Autopsy*, the lungs were healthy with the exception of an old calcareous patch at the apex of the right lung; the heart was normal; the kidneys were small and granular. In the left Fallopian tube was a cyst about the size of a Tangerine orange; and in the cervix uteri was a small mucous polypus. The stomach, left lobe of the liver, and great omentum were matted together by inflammatory adhesions, and there were adhesions around the right inguinal ring. The stomach and duodenum were distended with blood. Near the pyloric end of the lesser curvature of the stomach was a large ulcer, measuring 4 inches by 3½; at its upper part the base was formed by the under surface of the left lobe of the liver, and below by the pancreas. Projecting from the base of the ulcer was a bend of a good sized artery, which was perforated at two points, through which a probe could be easily passed. The edges of the ulcer were thickened and rolled out. The pancreas was healthy except where it formed the base of the ulcer, here it was indurated and chronically inflamed.

From the above notes you obtain the main symptoms of what turned out to be a very large gastric ulcer. The diagnosis of gastric ulcer is often very difficult, especially when it occurs in a patient over forty, in which case the question of malignant disease has to be taken into account.

In this patient everything pointed to its being malignant disease, for she had constant abdominal pain; there was a lump to be felt in the abdomen, and her age was 56. She seldom vomited after taking her food, her chief trouble being nausea and pyrosis. The severe hæma-

temeris was ascribed to the erosion of an artery by the growth.

The autopsy showed that the abdominal tumour was caused by the left lobe of the liver being dragged down and bound down to the stomach by adhesions, the ulcer being situated directly underneath it.

This case illustrates how difficult it is at times to make a correct diagnosis.

GEORGE BLACK.

## TWO CASES OF BELLADONNA POISONING.

On the evening of August 21st, two children, æt nine and six respectively, were admitted with symptoms of poisoning by belladonna.

In the first case, æt nine, on admission, the boy's cheeks were flushed, the eyes staring and fixed with widely dilated pupils, and the skin was hot and dry. Hallucinations of sight of a pleasing character were present, and there were well marked convulsions on both sides of the body. The boy was treated by thoroughly washing out the stomach and administering a purgative. For a short time he seemed rather depressed, but after an hour he became very noisy with more marked hallucinations. As a rule he was perfectly happy, but occasionally grew violent and irritable for a short time, always returning to his happy state within two or three minutes. At 10.30, a sixth of a grain of morphia was given hypodermically, and repeated at 12, but without effect. The delirium continued through the night, and was still marked the next morning. In the afternoon the hallucinations passed off, leaving the boy extremely irritable. The next day he was well. During the first night there appeared to be considerable difficulty in micturition.

In the second case, æt six, the mother stated that she found the child, three hours after she had left him, lying on the bed insensible with convulsions, and fixed eyes and widely dilated pupils. He recovered to some extent after a short time, but was then unable to stand by himself or see where he was going.

On admission he had no convulsions, but in other points was the same as the first boy—talking incessantly and chasing imaginary objects in the air and on the bed. The same treatment was adopted as in the first case. After the washing out, the boy became rather comatose with stertorous breathing, continuing in this condition for half an hour. Later on the delirium returned and the child became noisy. A twelfth of a grain of morphia was given at 11 and repeated at 12. At 1 o'clock the child quieted down, but was restless all night. In the morning he was still peculiar, but in the afternoon was quite well, with the exception of some irregularity of the pulse.

The only history that could be obtained was that the boys had picked up a bottle in a dust heap, whether it contained anything is not certain; and had also picked up a piece of "Spanish liquorice," which they had dissolved in some water in the bottle and then drunk the mixture.

C. F. R.

## SPINAL CARIES—TUBERCULOSIS.

J. J., æt. 50. Admitted into "Stephen" under Dr. Pavy, April 11, 1888, complaining of pain over the region of the sacrum.

*Family history.*—Good.

*Previous history.*—Has always worked as a "stone mason." Three years ago had "sciatica" in right leg, which came on suddenly and disappeared in the same way. Was treated in the Northampton Infirmary.

The illness for which he was admitted here came on suddenly, a violent pain seizing him in the region of the sacrum. Worse on movement, paroxysmal in character. This condition had lasted 10 weeks before admission, during which

time he got gradually weaker, and latterly was unable to walk without assistance.

*On admission.*—He was very wasted; two sinuses, one of which communicated with the left sterno-clavicular joint, the other in close proximity, were discharging a little clear serous fluid. Movement in bed, which is extremely painful, causes convulsive flexion of the thighs and legs, the pain being referred to sacral and lower lumbar regions. Is unable to sit upright. No pain on pressure over sacrum, spine, or any part of the pelvis. No redness or swelling over these parts. Abdomen retracted, general tenderness on palpation; on deep pressure in right iliac fossa complained of pain. No tumour to be felt.

*Respiratory system.*—Had slight cough with thin mucoid sputum; no adventitious sounds, chest quite normal. Pulse 104, small, soft, regular. Temperature 101.6. Urine normal.

April 16. *Rectal examination.*—Coccyx normally moveable; no pain or tenderness on pressure over anterior surface of sacrum. Great pain, referred to sacrum, on flexing left thigh on abdomen while keeping the knee extended; much less pain on doing the same on the right side.

May 30. Got up for an hour after tea. Intense pain in left leg on locomotion. Lies in bed with knees and hips flexed, more especially the left, the left leg being quite rigid.

June 11. Râles all over 3rd left interspace in front. Bronchophony more marked here than on the right side; tubular breathing in 3rd left interspace. Pain on pressing sacrum bodily forwards, and on pressing over the left sacro-iliac synchondrosis.

June 20. Temperature, 102; pulse, 134; urine, 1017, trace of albumen. Pain has completely disappeared from left leg; lies in bed with legs straightened.

June 22. While straining at stool, passed more than a pint of fœtid pus. Temperature 104.4.

June 23. Still passing pus per anum. Is in typhoid condition. Subsultus.

Loud pleuritic rub in 4th left space close to sternum. Pulse, 130; temperature, 102.

June 25. Death.

*Abstract of Autopsy.*—Severe disease between 5th lumbar and 1st sacral vertebræ. Bone very carious, but sclerosed at periphery. Large sequestrum at back of vertebræ. Double psoas abscess, most extensive on left side; running down outside left femoral vessels; then deeply by the side of the neck of the femur. The abscess on the right side communicated with that on the left through the diseased vertebræ. Nerves of left sacral plexus ran, quite denuded, through middle of left abscess. Front of sacrum bare and rough; left abscess, which rested upon it, had burst into the rectum 8 inches from the anus. Recent pleurisy at right base; old pleuritic adhesions in various parts. In the lungs—diffuse tuberculosis, most marked on the surface of the lung, where tubercles and pigment were distributed in a remarkable manner as if the lymphatic tracts were infected—they formed a kind of network to look at, and felt very rough. The majority of tubercles were not recent, but rather fibroid; there were a few miliary tubercles. The interior of the lungs showed fibroid and recent tubercles, old healed phthisis at both apices. No cavitation. Miliary tubercles present in costal plemæ. Other organs healthy.

R. G. P. L.

## ACCIDENTAL HÆMORRHAGE.—RIGID OS.—CRANIOCLASM.

On August 11th, a case of antepartum hæmorrhage occurred in the Charity. The patient was first seen about noon, and the history given was as follows:—She was in the eighth month of her pregnancy, and the bleeding had commenced about an hour before. She had had six children only one of which had been born alive. The two last confinements had been premature, and

had been complicated by hæmorrhage, which necessitated interference. When seen she was losing a small amount, and there were no signs of impending labour.

She was seen again at 5 p.m. The hæmorrhage had been continuous, though still small in quantity. The cervix was soft, but not dilated. The finger was easily passed up into the uterus, when the head could be felt in the normal position, but nothing of the nature of placenta prævia could be detected. The same condition of things was found two hours later, when the membranes were ruptured and a Barnes' bag introduced.

In about three hours the os had been dilated to the size of the largest Barnes' bag, but was rigid. Dr. Horrocks then had chloroform administered, to promote, if possible, further relaxation, and to allow the application of the long forceps. When these were applied traction was kept up for an hour and a half, but the os still continued rigid, the effect of the traction being to bring down the anterior lip, now congested and much swollen, to present at the vulva. He thereupon decided to perforate. This was done, and the craniotomy forceps were applied, but strong traction failing to deliver, cranioclasm was performed; after this, delivery was easily effected. The uterus contracted well and the placenta was easily expressed. The uterus was then washed out, and a dose of ergotine (gr. $\frac{2}{3}$) given. The patient was left with a fair pulse and a strongly contracted uterus. The uterine surface of the placenta was covered with thick adherent clot. The subsequent treatment consisted of washing out twice daily with lotio hydrarg. perchlor. (1 in 2,000).

The temperature rose on the second day after delivery to 103·5°. She was given three doses of antifebrin (gr. iij.) in 24 hours, with the result of a temperature of 101·5°, after which the temperature gradually came down, and she made an uninterrupted recovery.

*Remarks.*—A rigid os is not a common complication of labour, but when it does occur it is often difficult to overcome. If the opening be sufficiently great to permit the application of the forceps, steady traction will, in most cases, succeed in effecting delivery; but care is necessary to avoid serious laceration. In the present instance traction was kept up for an hour and a half, and the only effect was to pull the whole uterus downwards. The anterior segment of the cervix was drawn down to the vulva. The margin of the os externum was so tightly stretched that serious rupture was feared.

The patient became more and more exhausted, and at last it was decided that, to save her, delivery must be accomplished quickly. Hence the perforation and subsequent operations.

It is exceedingly rare to find cranioclasm necessary for the delivery of a child through spasmodic rigidity of the os. In over 25,200 cases attended in Guy's Lying-in Charity, from 1875 to 1885, there were twelve cases of rigid os, or one in 2,100. They were all overcome by the use of the forceps.

The degree of frequency with which the internal os or external os is affected with this condition has not been fully ascertained, but in the present instance it was undoubtedly the external os which gave rise to the trouble. No disease was discoverable in the cervix, so that it appeared to be pure spasm. At the same time, it might have been more fibrous than usual. After the delivery it felt soft and natural.

By waiting longer, or by making more traction, the child might perhaps have been extracted; but it would most likely have been still-born and the mother's life jeopardised, if not actually lost.

NOTICE TO CORRESPONDENTS.

*The Editors wish it to be understood no communications can be inserted which are not guaranteed by the name of the sender. All articles must be written on one side of the paper only.*

# Passim.

All those who knew Dr. Moxon must have been glad to see the description in the *Graphic* of the Memorial Tablet, erected to him and placed opposite that to Dr. Fagge at the entrance to the School Buildings.

In the *Indian Medical Journal* of May, 1888, there is the report of discussion on Wet Cupping in Pneumonia, &c., a few quotations from which may be of interest to our readers. The paper on which the discussion was based was by Surgeon A. R. Edwards, of the 1st Sikhs, stationed at Kohat on the north-west frontier. After recording in detail ten cases of pneumonia and broncho-pneumonia, in which he had wet cupped, and in all of which there had been a marked fall of temperature, he advises, as the result of his experience, the following treatment:—"If sthenic, wet cupping at an early stage, milk diet, free purgation, the use of diaphoretics, and, when the temperature is reduced, quinine. If asthenic, wet cupping at an early stage, milk, beef tea, and stimulants. In broncho-pneumonia, he considers that emetics are of more use than wet cupping. [This reads strangely like the treatment of our forefathers. Sir T. Watson, in the second edition of his Lectures on Medicine, published in 1845, says, "When one is called, in consultation, to see a patient labouring under inflammation of the lungs, we may safely speculate upon the conclusion that bleeding and blistering, and purging by calomel, have all been performed."] The discussion did not throw much light upon the subject, but Dr. Center, whilst objecting to any form of treatment being advocated on one year's experience of it, made the interesting statement that whilst in one year the type of pneumonia is mild, in another it is severe, and that in bad malarial years the death rate from pneumonia is very high.

About 9 p.m. on Tuesday evening an application for a card was made to the Junior Charity. The applicant was accompanied by two friends, all three having very evidently found frequent refreshment necessary on their way to the Hospital. She stated she had been in labour for twelve hours, the pains being slight. She was sent home with an extemporised card. Two hours later the Charity was called out to see the same case, which had arrived in a cab in charge of two policemen. In the cab were found the mother somewhat exhausted, and the two friends, one having charge of the child and the other of the placenta. The delivery had been successfully brought off in the gutter in Newcomen Street, about twenty minutes before. She was at once admitted into "Dorcas." Both mother and child are progressing well.

## CASES OF HYDROCHLORIC ACID POISONING.

Case 1. Ann H., æt 60, was admitted on May 9th into Miriam ward, under Dr. Hale-White; said to have taken about two ounces of "spirit of salts" three hours before. When first seen she was not very collapsed, and was able to walk to the hospital. Pulse was small, 96 per minute, and she complained of pain in the stomach. The mouth was not excoriated, but there were some reddish spots on her dress. The stomach pump was not used, but chalk was administered. On the next day, she complained of great pain in the stomach and gullet, the tongue was whitened, and she vomited some porter-coloured liquid, which gave the guiacum reaction for blood.

On May 14th, five days after admission, and up to which time she had been fed by mouth with small quantities of milk, all feeding by mouth was discontinued as she on several occasions vomited blood, and almost continually suffered from pain in the abdomen, which was

much worse after food. From this date till the 7th of June, she was fed exclusively per rectum with nutrient enemata, Slinger's suppositories, &c. Opium was also given, and hot fomentations were applied to the abdomen to relieve pain.

On June 7th, feeding by mouth was recommenced, as she had not vomited blood for three days, and latterly she had been getting thinner and weaker. At first, one drachm of pancreatised milk was given every hour, then two drachms, until it was increased to four drachms per hour. On June 11th, she died.

*At the Autopsy*, there was some fat about the surface of the body and in the omentum; there was also fatty infiltration of the heart; liver and spleen healthy; lungs slightly œdematous. The œsophagus showed traces of ulceration. The greater part of the mucous membrane of the stomach was absolutely destroyed and was represented by cicatricial tissue; there were, however, a few patches of healthy mucous membrane at the cardiac end. There were two perforations, one about the size of a shilling near the lesser curvature about two inches from the pylorus; the second near the greater curvature; there was no peritonitis or extravasation in either case, owing to the margins being closed by adhesion, in the first case to the liver, in the second to the great omentum. The first part of the duodenum was ulcerated, the remainder of the small intestines healthy. The rectum presented no general inflammation, but there was a small ulcer posteriorly about ¼-inch in diameter which probably the enema syringe had caused.

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Case II. Child, æt 8, was admitted into Miriam, under Dr. Hale-White; said to have swallowed some spirit of salts. The quantity was not known. The mouth and lips were much excoriated, and there were a few reddish spots on the dress. Pulse, quick. The child did not complain much of pain at first, but soon after admission he seemed to suffer pain in the throat and abdomen, and the legs became drawn up.. On the next day, the child cried a good deal, and seemed to be in much pain. Towards evening, the temperature became raised and the respirations became more frequent, and he developed broncho-pneumonia and died.

*On admission*, 20 grains of carbonate of magnesia were administered, but it was some time after the poison had been taken. Small quantities of milk were also given.

*At the Autopsy*, there was a patch of bronchopneumonia at the base of the left lung, the œsophagus was slightly abraded in places, and there was a small perforation in the posterior part of the stomach, and all the posterior wall was softened; there was slight local peritonitis around the seat of the perforation. Other organs were healthy.

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With regard to treatment, some alkali as lime water or magnesia or their carbonates should be administered on first seeing the case, care being taken in the case of the carbonates not to give a large dose at a time, as the evolution of large quantities of carbonic acid gas would cause intense agony and perhaps serious injury. As a general rule, the stiff gum-elastic stomach tube should not be used as it is liable to perforate the already softened walls of the stomach, but a soft rubber tube may be passed if care be taken.

A most important point in these cases is how to give food. The stomach is severely ulcerated and if food be taken into it, its movements and the irritation of the food will tend to greatly increase the risk of perforation. On the other hand, there is no doubt that a patient cannot be kept alive by nutrient enemata for an indefinite period, probably for not more than three or four weeks.

A good plan is to feed by nutrient enemata as long as there is any hæmorrhage from the ulcerated stomach, or if the patient is wasting

much to give only small quantities at a time of artificially digested milk. This patient for some time daily vomited blood; while this lasted she was fed by enemata. The patent nutrient suppositories sold consist mostly of extractives and peptones, and act probably chiefly as stimulants and in a less degree as food.

The nutrient enema given in case I. was made up as follows:—three parts of minced lean beef to be mixed with one part of minced pancreas, a quarter of a pint of water to be added to ten ounces of this and allowed to stand for some time in a warm place; four ounces of this mixture to be given every four hours.

The immediate dangers in a case of poisoning by hydrochloric or any other corrosive acid is death from shock or from œdema of the glottis, which may supervene within a short time; while the secondary dangers are:—bronchopneumonia, perforation with peritonitis, hæmorrhage, stricture of the œsophagus, and a cicatricial condition of the stomach following the ulceration. This latter condition was present to an extreme degree in case I., where the mucous membrane of the stomach was mostly represented by newly-formed cicatricial tissue, secretion and absorption being thus almost entirely abolished. W. E. T.

## NOTES ON PATHOLOGY.

By DR. R. E. CARRINGTON.

*(Continued.)*

### CEREBRAL TUMOURS.

There are few situations in which a greater variety of tumours may be met with than in the cranial cavity. They should be divided into—Primary and Secondary.

Although not strictly a cerebral tumour, sarcoma of the skull should be mentioned. The question is raised whether these commence in bone or in dura mater.

(*a*) From the fact that they are associated with other bones; and

(*b*) Secondly, that the inner surface of the dura mater is often quite smooth over the tumour.

The osseous origin of the tumour seems probable.

They may grow either way, and appear as pulsating tumours of scalp, or may indent the brain.

They are probably primary tumours of the skull. Their microscopical character is sarcomatous,

### PRIMARY CEREBRAL TUMOURS.

*Large Solitary Tubercle.*

The term solitary is not always appropriate. There may be two or three. This is the form of tumour most common in children, and occurs quite independently of pulmonary disease. The favourite situation is the cerebellum, but the pons is frequently affected. They consist of variable-sized rounded yellow masses, firm, not often softening in the centre, sometimes as large as a billiard ball, and surrounded by a narrow zone of pinkish-grey semi-translucent substance. If this zone be examined the structure of typical miliary tubercle will be found. This is the growing edge. The bulk of the tumour is made up of structureless granular material.

### GUMMA.

These are nearly always the result of acquired syphilis. They originate in the membranes, and invade the brain secondarily. They have a special predeliction for the region of the middle cerebral artery and the base of the brain. They are generally multiple, and so give rise to very variable and irregular symptoms. The irregularity of paralyses met with in cerebral syphilis is often of the utmost use in diagnosis.

*Microscopically*, gummata belong to the same class as tubercle, consisting of leucocytes which degenerate into a granular detritus in the centre, but which are surrounded at the periphery by a zone of well-formed fibrous tissue.

### GLIOMA OF BRAIN.

This is a primary tumour; generally single. but sometimes multiple. The growth shades off insensibly into the surrounding brain tissue. It may be grey in colour, and resembling the grey matter of the brain; or may be more or less white, or quite of a deep red. These, however, are liable to softening and degeneration, and being very vascular they are often dotted with hæmorrhages.

*Microscopically*, it seems to be determined that the nerve cells have nothing to do with the origin of these tumours, but that they arise from the neuroglia. In structure they are composed of round or oval cells, resembling those of neuroglia, which gives off numerous long, delicate processes, and these interlace and communicate in all directions so as to found a reticulated stroma. It is often difficult and sometimes impossible to distinguish by the naked eye a glioma from a patch of softening.

### MYXOMA.

This is found as a primary tumour, and often reaches an enormous size. It consists of myxomatous tissue, *i.e.*, large stellate cells giving off processes which intercommunicate (connective tissue cells). In the meshes a gelatinous fluid containing *mucin*, and more or less fibrous tissue. The probably correct view of myxoma is that it consists of ordinary connective tissue, the alveoli of which have become distended with a form containing mucin,

VARIOUS FORMS OF SARCOMA.

Almost any variety from the soft, rapidly-growing, round-celled sarcoma; through the spindle-celled, to the growths largely composed of fibrous tissue (fibro-sarcoma). These tumours especially affect the base and the parts in the neighbourhood of the body of the sphenoid.

CHOLESTEATOMA.

A rare kind of tumour consisting of a roundish mass of semi-translucent material of the appearance of white wax.

Tumours have been met with, generally single, sometimes multiple, which consist simply of an overgrowth of the natural grey matter.

The above constitute the most important forms of primary cerebral humours. Clinically, however, the following are primary:—Abscess, Aneurysm, Hydatid.

*(To be continued.)*

# Correspondence.

*To the Editor of* GUY'S HOSPITAL GAZETTE.

## MALINGERING.

DEAR SIR,—The following case, which presented itself to the writer a few hours after reading Dr. Halstead's amusing account of "The Yorper," may be of interest.

It was my fortune, whilst doing a Locum Residency at a provincial Infirmary, to be called to a female patient whose escort said that she had been "taken very bad," and had "come near being suffocated." Unsolicited the patient gave a "whoop," and in answer to my enquiry as to whether she had been subject to these attacks, replied that she had "had one some years ago." "Whoop."

She was then put through some evolutions; being told to put her tongue far out, pass her finger all round her upper and lower gums, &c. This she objected to, but got through very creditably, and actually counted up to twenty twice with only a slight hitch. The stethoscope was then applied to her chest, and as the "whoop" seemed again threatening, she was directed to hold her breath. All this time, and during the perfectly normal respiration which followed, her face was closely examined, and as the "whoop" seemed to have subsided, it was considered advisable to prevent their recurrence. Our excellent casualty nurse suggested burnt sugar and water, but recourse was had to the more potent asafœtida. At the same time she was directed to get an out-patient note and come up next day if she did not feel better. This she declined to do after what "that lady," the nurse, had said to her; and so far as I know she has not turned up there since.

Our legal friends tell us that "Qui facit per alium facit per se," and if this be true the disease is not unknown even amongst infants.

Dare I confess that, within a few days of the above occurrence, I was induced to take in a poor little sufferer from "Inward Convulsions," whose unfortunate mother had already lost one from the same complaint and wouldn't like to part with this one.

It was in vain that she was told to "give the child the powder, place it in a warm bath and wrap it in a blanket." She had no blanket, "only a sheet and counterpane like other people."

Next day it was positively unkind of them to say I had been "badly had." That the mother was changing houses and had sponged on the Institution once or twice before.—I am, dear Sir, yours truly,

SEMPER VIRENS.

## NAPHTHOL AS AN INTESTINAL ANTISEPTIC.

Careful bacteriological studies have shown that none of the drugs ordinarily used internally as antiseptics have much, if any, potency, so far as the fermentative changes in the intestine are concerned. Calomel, bismuth, salicylic acid, naphthalin, carbolic acid, all diminish the number of micro-organisms in the fæces but slightly, perhaps one-fourth or one-third at the most. Given in large enough doses to be really effective germicides, they are all dangerous to life. To secure a real intestinal antiseptic we must find a drug but very slightly soluble, not readily decomposable, non-irritating, of powerful disinfectant property, and, comparatively innocuous to life, even when it does reach the circulating fluids of the body. Rossbach thought that in naphthalin such a substance had been found, but in this later experience shows that he was mistaken.

In a recent communication to the Académie de Sciences, M. Bouchard claims to have found a substance which does fill all these requirements, viz., naphthol. Naphthol is not a new drug. It has been used by dermatologists for six or seven years, and by surgeons for a somewhat shorter time. The preparation usually employed is the beta-naphthol, and this is what Bouchard uses. It is obtained from tar, and is a substance soluble in alcohol, but not in pure water. Bouchard first made a series of experiments to determine its germicidal power. With regard to pyogenic micro-organisms, he found that a solution of 0·40 per 1,000, or 0·04 per cent., was sufficient to prevent their development. This, he states, is one-sixteenth the strength of mercuric biniodide, and five times the strength of carbolic acid.

But though less powerful than mercury as an antiseptic, it has the advantage of being comparatively harmless to the human body. As the result of tests made, Bouchard states that the toxic dose of naphthol for a man weighing one hundred and thirty pounds is 250 grammes, or about half a pound. On the other hand, a daily dosage of 2·50 grammes, or less that forty

grains, is sufficient to produce intestinal antisepsis. Toxic, not lethal, effects have only been produced when the naphthol was ingested in doses of about 26 grammes. The phenomena are those of albuminuria, spasmodic muscular contractions, salivation, and coma. Hæmoglobinuria has not been observed.—*New York Medical Record.*

## THE VITALITY OF TUBERCULAR VIRUS.

M. GALTIER.

The muscle-juice of a phthisical animal is, like the blood, sometimes virulent. This has been established by numerous experiments by M. Galtier, and also by M. Toussaint, who have also proved that, if the flesh of phthisical animals is not always dangerous, it certainly is sometimes, particularly when it has been incompletely cooked, and when the heat has not penetrated thoroughly into the deeper parts. In this manner the author has caused rabbits to become tuberculous by inoculating them with the juice of tuberculous muscle, or tuberculous milk that had been heated for twenty minutes to 60° C., or to 71° C. during ten minutes. Desiccation at a certain temperature does not sterilize the tuberculous virus; it even helps to preserve it, and the malady has been communicated to animals inoculated with tuberculous matter, dried at temperatures lower than 30° C., by hypodermic, intra-peritoneal, or intra-venous injection, or by spraying into the respiratory organs. Salting, unless continued for a prolonged period, does not destroy tuberculous virus, and flesh salted during forty-eight hours in brine of a strength of six grammes of kitchen salt to every sixteen grammes of flesh, communicated the disease to animals. The contact of water has no effect on the virus, and rabbits contracted the malady after being inoculated with small portions of tuberculous spleen that had remained in water at a temperature of 3° and 8° C. for eight, ten, fifteen, and seventeen days, and was more or less in a state of putrefaction. Milk, tuberculised and exposed to putrefaction for five and ten days, communicated the disease to rabbits and guinea-pigs. Freezing at 3°, 4°, 5°, 6°, 7°, and 8° C. below zero, or alternating with diurnal temperatures of 3°, 4°, 5°, 6°, 7°, and 8° above zero, did not destroy the tuberculous virus, and many rabbits were rendered tuberculous by intravenous inoculation with tuberculous spleen that had been subjected to the processes just mentioned. M. Galtier concludes that tuberculous virus retains its activity in water, in putrefied matter, on the surface of objects, in spite of desiccation, of variations of temperature, and even of freezing; therefore, the excretions of phthisical patients and tuberculous animals are a source of continual danger. He urges the necessity of insisting on the complete disinfection of all objects that have been soiled by tuberculous animals, of their excretions, of the places occupied by them, of their litter and dung, &c., in order to prevent dissemination of the disease and its communication to man.—*Union Médicale*, Aug. 6, 1887.

## REST AND PAIN.

*(Continued.)*

With regard to ABSCESSES. They are foreign bodies, and the sooner they are opened the better. Everyone knows the wonderful effects of opening an abscess—the patient will often have the best supper and the best night's rest he has enjoyed for weeks. Mr. Hilton thought that the abscesses about the hip joint, when that is diseased, should not be opened; but antiseptic surgery has now removed his objections, and the rule that abscesses should be opened is a fixed one. The abscess should be drained, and from its lower part, or the pus will "bag"—an abscess, thus, should be opened in the mouth if it is under the temporal aponeurosis, for if this is not done the pus will have to be evacuated by squeezing, and this is both meddlesome and needless. Above all, the abscess must be kept at rest. "An abscess without rest," says Mr. Jacobson, "whatever the cause of disquiet—whether muscular activity, as in the ischio rectal fossa; abscess in the neck from imperfect breaking down of scrofulous glands; or one in a bone which won't yield—is always liable to give future trouble. There may be the worry of sinuses gradually extending, and followed by lardaceous disease after an empyema that has never healed; or first attacks of inflammation may light up again after years of quiet by some caseous cretaceous substance; finally, a long-standing sinus or imperfectly-healed abscess, in the region of the rectum, may be fretted into an epithelioma."

Ulcers about the anus are dreadfully painful and obstinate, and can only be healed by insuring perfect rest, especially if within the grasp of the sphincter ani. This muscle is small, but capable, on account of its large nerve supply, of remaining contracted against great pressure. "Who," says Mr. Hilton, speaking of this muscle's resistance to powerful peristalsis, "who has not felt this kind of intestinal warfare going on in his intestines, fearing the issue, and has not been thankful for the result, and full of gratitude for the enduring strength of the little indomitable sphincter, which has arrested the possible and unspeakable—and oft, how unspeakable—disaster."

Suppose, then, an irritable ulcer in the clutches of this powerful muscle, whose function is to remain tonically contracted—its surfaces grind together at every movement, more irritation is set up, the sphincter is reflexly screwed up the tighter, the fibres eventually becoming hypertrophied, and so on until his strength fails him. The treatment is simple—destroy by a knife or cautery the sensitive points in the ulcer, divide the muscular fibres which keep the base at unrest; and the ulcer will make good use of its opportunity to heal up.

Corn-plasters are capital illustrations of the "Rest" treatment; taking the pressure off the diseased spot, corns and bunions may be cured by wearing rational boots. No sane man attempts to fit a round peg into a square hole. Then why force the broad end of the foot into a wedge-like shoe, so that the narrow part of the wedge corresponds to the broad base of the toes?

With regard to the urethra, a case Mr. Durham once lectured upon will show how often the rest treatment is useful. A man came in for stricture (æt. 36). He had had gonorrhœa some twenty years before. Some time after, he had a bad stricture, and was tapped per rectum, the tube being left in seven days, and by this time a large catheter very easily passed into the bladder per urethram. Later on he had a second stricture, and was again tapped; this time three days cured the urethra. Not content with this, a third severe stricture developed. The reason for these repeated attacks is not clear. The man denied more than one attack of gonorrhœa. Anyway, his bladder being in imminent danger, he was tapped suprapubically, and in four days a small catheter passed into the bladder. The method of cure in all these operations was precisely that of giving rest—Firstly, no more urine flowed over the diseased surface of the urethra; secondly, the straining to force the water against large resistances was terminated; and the urethra at once got the better of its disease.

Inflamed tonsils and pharynx cause great suffering from the constant reflex act of deglutition, which is started by the irritation, the movement thus provoked effectually keeping up and increasing the local mischief. An anæsthetic, locally applied, would act by allowing no more deglutition impulses to start from the inflamed parts—thus resting the latter effectually.

I need say very little about fractured bones. Complete immobilization with the fractured bone in good position, and that for weeks, is the only treatment, as it the best for fractured or, rather, ruptured muscle or ligament. The negative evidence given by a fractured coccyx is convincing; the difficulty of fixing the bone making it one of the most troublesome to deal with.

The ingenuity expended upon the invention of splints and mechanical contrivance for fixing parts has been wonderful. But from the couple of planks on each side of the wounded limb, to the complex machine we know by the name of a "Double Bryant," the principle is the same; the firmer and more close-fitting the better; hence the commonly used "croft." Quite analagous to "callus," nature's splint, is the lymph poured out by an inflamed serous membrane. By its means time for the recruit of its lost powers is gained most effectually by the membrane, and it shows its return of function by absorbing its "splint" the moment the latter has served its end. The "mucus" in the alimentary canal often performs the same duty. Rest causes the blood to coagulate; hence the treatment of aneurysm and phlebitis. When once thrombosis has taken place, complete rest, with the limb extended and elevated, is imperative to prevent, firstly, increase of local mischief, and, secondly, to guard against embolism of the pulmonary or other vessels by detached portions of clot.

Let us now turn to diseased joints for a short time. The most characteristic point in an inflamed joint is its fixation—that "vital ankylosis" of which we have already made mention—for it is generally a muscular fixation; though the outgrowths of bone, in certain joint troubles, may also act in this way, by locking the joint.

*(To be continued).*

# Hospital News.

## INTERESTING CASES.

STEPHEN.
12. Tricuspid, mitral, ?aortic.
13. Uræmia.
14. Liver, malignant.
15. Tremors, etc.
32. Aortic, to and fro.
34. Bright, hæmaturia.
36. Renal calculus.?

MARY.
2. Gonorrhœal synovitis.
9. Cardiac, pneumonia.
12. Lupus.
41. Acute rheumatism.
42. Tubercular peritonitis.
Cot 56. ?Tubercular peritonitis. Tetany.
27. Tetany.

PHILIP.
1. Hydronephrosis following injury.
2. ?Tubercular kidney.
15. Pericarditis, ?acute rheumatism.
30. Typhoid relapse.
33. Spastic paraplegia, fourth attack.
38. Gonorrhœal rheumatism.

MARY.
20. Cardiac.
23. Multiple effusion into joints, ?gonorrhœal.
29. Hysterical paraplegia.
32. Gonorrhœal rheumatism.
34. Ataxic paraplegia.

DORCAS.
2. Spinal caries, double tubercular testis.
19. Sloughing fibroid of uterus.

CHARITY.
6. Cancer of rectum, colotomy.

CORNELIUS.
16. Fractured scapula and ribs.

JOB.
10. Stricture of œsophagus.
11. Pulpy wrist.
24. Ossifying enchondroma of fibula. ?

LYDIA.
10. Fungating tumour of breast.

MARTHA.
20. Compound fracture of femur.

ACCIDENT.
27. Compound separation of lower epiphysis of tibia, with fracture of tibia.
17. Dislocated knee, tibia out and backward.
26. Fractured thyroid cartilage.

LUKE.
12. Sarcoma of bladder, suprapubic and perineal drainage.
2. Perforating ulcer of foot.

NAAMAN.
17. Tubercular disease of glands of groin, removal.

**Guy's Hospital Gazette,**
*SEPTEMBER 29, 1888.*

## THE NEW SESSION.

On the 1st another Medical School Year will commence, and on that day there will be a gathering together of men who are coming back to take up the work which, for a short time, they have laid aside, and of men who are, for the first time, entering on their chosen calling.

In another part of the Gazette will be found an address to the Students by an old Guy's man, who has only left the Hospital so short a time as still to be remembered by many who are yet in their Student days. With some of the things that Dr. De'ath says we cannot however agree. It seems to us that the object of a Medical School is not to teach men the details of medical practice; as to the bearing of a medical man to his patient, or to his patient's relations, nor even as to the methods of treatment adapted to satisfy the wants of patients who have nothing much the matter with them, but is far higher and far more important; the time that a man can spend upon medical work is short, and there are far more essential things to be learnt. Surely his aim should be to acquire that knowledge which will enable him to save life, to alleviate pain, and last, but not least, not to overlook those diseases which, however, infrequently met with in comparison with the number of slighter ailments that he is called upon to treat, yet when met, if not correctly diagnosed, may cost the patient his life. It is exactly these conditions that are met with in the wards of a hospital, and which he can there, and perhaps there only, learn to recognise and treat. It is no satisfaction to a man to know that, by the application of a Belladonna plaister to ten patients with pain in the side, he has relieved their pain, if he discovers that in the eleventh patient with pain in the side he has failed to recognise, and therefore to treat, a collection of pus in the chest, and thereby has failed to save the patient's life.

The majority of ordinary patients could still lead useful lives had he never seen them, it is the minority who have to trust to his skill and knowledge to save them from the grave. The treatment of the easy cases can be quickly mastered, it is the difficult cases that will try him, and will test the thoroughness with which he has worked during his student days, and the way in which he has mastered the recognition and treatment of such conditions in the wards of the hospital.

Again, the means of alleviating pain can nowhere be so well learnt as by watching in the Wards, the treatment dictated by the experience of the Physicians and Surgeons who are being constantly called upon to treat serious cases. Lastly, as to the bearing of the medical man to his patients in private practice; this, surely, must depend upon the man himself, and cannot be taught. No amount of lecturing to, can make the unsympathetic, sympathetic; or the rough, gentle. No patients are so much in need of consideration as the hospital patient, and learning to be considerate to the poor, who cannot revenge themselves for want of consideration by refusing to pay, is the surest way of making a man universally considerate to all patients, whether poor or rich.

## THE NEW COLLEGE.

The readers of the Gazette may have already learnt from the "Green Book," if not from our own columns, that a residential College for Students is to be erected upon a site in Great Maze Pond, fronting the east gate of the Hospital. The excavation of the foundations has been commenced, and it is hoped that the building may be ready for occupation in the Winter Session of next year. The erection of

the College has been undertaken by a Committee, consisting of the President, Treasurer, and three other Governors of the Hospital, with four members of the Medical Staff; and the sum of £20,000, which is the estimated cost of building and furnishing, has been already raised without appropriating to this purpose any portion of the Special Appeal Fund.

It would obviously be premature to speculate upon the details of management and discipline, which have yet, we believe, to be settled by the Committee. It must suffice to say that there will be a resident Warden who will "have the general control and supervision in disciplinary matters over the Students residing in the College," and he will be appointed by the Treasurer upon the recommendation of the College Committee.

The plans of the College, in accordance with which the building is now proceeding, shew the following accommodation:—

1. Resident Staff.—Four Sets of Rooms for House Physicians, each Set consisting of a Sitting Room and Bed Room; four Sets for House Surgeons; two Bed Rooms and a common Sitting Room for the "Charities"; four Bed Rooms and a common Sitting Room for the Externs. The House Surgeon and Dressers for the week will sleep near the Surgery, to be close at hand for sudden emergencies.

2. Students.—Thirty-four Sets of Rooms, each Set consisting of a Sitting Room and Bed Room; two Sets, consisting each of two Bed Rooms and a single Sitting Room; and eight single Rooms, somewhat larger than the others, with an Alcove for the bed. Four large Bath Rooms, with hot and cold water supply, are also provided.

3. Public Rooms.—The Public Rooms, which are intended not only for the Residents in the College, but also for the use of the Guy's Hospital Students' Club, comprise a large Dining Hall, 70ft. long by 22ft. broad, with an open timber roof; a Smoking Room, 48ft. by 27ft.; and a Reading Room; and the Lavatory accommodation is very complete.

We hope when next October comes round to be able to enter into further details, and meanwhile, if the cost of board and lodging is kept as moderate as possible, and all reasonable liberty allowed to those within its walls, we believe that the College will not disappoint the hopes of its founders. We may at least regard it as of happiest omen for the future that the Governors and Staff of the Hospital should have so heartily co-operated in providing much-needed and long-desired accommodation for the Students of our Medical School.

## THE PHYSIOLOGICAL LABORATORY.

The new physiological laboratories which have been erected consist of two large, well-fitted rooms adjoining the old Lecturer's Laboratory. The lower room is intended chiefly for physiologico-chemical and microscopical work, and the upper room contains one bench for microscope work, but will chiefly be used for demonstrations in physical physiology and for special investigations of a physiological and therapeutical character. The additional space available for practical work will permit of some alteration in the course of physiological teaching hitherto prevailing in the school. The preparation and examination of histological specimens will be carried out in the laboratory. Each student will go through a short course of physiological chemistry. The practical physiology class will consist in instruction on these subjects and in such parts of experimental physiology as are most essential; the time of the class will be entirely devoted to actual instruction, the practical work being carried out in the laboratory by the students themselves.

For the students who are working for the higher examinations a special place will be

given in the laboratory, where they can work at all times when the room is not required for the general class. Senior students, it is hoped, will undertake short original investigations on histological and physiologico-chemical subjects. There is no doubt this is the best way of thoroughly learning methods and principles, and of encouraging the study of advanced physiology. The School has granted a considerable sum for additional instruments, so that the demonstrations will be much more complete than heretofore.

Physiological science is in a so eminently unstable condition at the present time that both teaching and learning are difficult undertakings, and we are under great obligations to the Governors for having supplied us with the new rooms, which will greatly lessen the mechanical difficulties we have hitherto had to contend with

## THE PATHOLOGICAL LABORATORY.

A new room for pathological and microscopical work has been, through the liberality of the Governors, erected during the past year adjacent to the Post-mortem Room. The roof is one large skylight, which in clear weather gives an excellent light for all purposes, and can when necessary be supplemented by gas, which is laid on to brackets on the tables. It is hoped that students who may be willing or anxious to undertake microscopical work will communicate with the demonstrators on morbid anatomy, who will provide them with apparatus, and there is never any deficiency of material on which to work.

## THE PATHOLOGICAL MUSEUM AT GUY'S.

We have received a copy of the Annual Appendix to the General Catalogue in use in the Museum, and from it we gather that some important changes are in progress in that department. It has been decided to revise the present Catalogue, to re-number the specimens, and, by improving the descriptions, to bring the new edition up to date, and thus to increase the value of the Museum as a place of study. In carrying out this object, particular attention will be paid to the naked eye and microscopic characters of the specimens; the clinical history will be given more fully; and references to the clinical and pathological reports, which are kept in their respective departments, will always be added, so that any one using the Museum will have access to all the information that has been preserved on the subject in question.

Further, references to the transactions of the various societies, medical journals, &c., will be given as far as possible, so that any point of interest which may have been discussed shall not be lost. Very many of the older specimens have little or no clinical history attached, and their minute structure is unknown. In some cases it will be possible to supply these deficiencies, but the majority must be replaced by more modern examples. The present Appendix, which differs from its predecessors, has been drawn up on these lines, and, as far as we can judge, will prove very useful to students of pathology.

We shall have a few remarks to make on some of the recent specimens, but they must be reserved for another occasion.

## STUDENTS' CLUB.

For a number of years there has been felt to be a great want at Guy's, viz., a club in which men could get not only something to eat, but also where a few spare minutes out of the hard day's toil could be spent. Now, through the consideration and kindness of the School Committee, who started us on a good, firm basis, we have had a club for a year. There is a committee consisting of six members of the staff elected by the School Committee and six students to be elected annually. We have to thank the members of the staff very much for the hard work they did to start it, and also for the trouble they have taken since. We have now a large dining room, smoking and reading rooms, and owing to the success of the club were enabled to start a gymnasium and also afford some extra lavatory accommodation.

In the smoking room one can see all the daily and illustrated papers and also the standard magazines. There is, therefore, no excuse for men not being able to read all the latest articles of the day, especially when enhanced by the comfortable furniture provided; and next to the smoking room is the best place in the hospital to read in.

The gymnasium is well fitted up, and under the guidance of one of our distinguished sportsmen our muscles are even now beginning to outclass those in the "waxworks."

Now we come to the dining room, the management of which has caused such general satisfaction. Breakfasts, luncheons and dinners are obtainable here, and at what is a very great inducement, viz., a very moderate sum. I understand that it is also proposed to make some reductions in the tariff, for luncheons especially, and there are great hopes of something like a coffee bar being erected. This, no doubt, would be a very great inducement, for the winter especially.

On the evenings of the Physical Society's meetings, when the club is kept open an hour longer, a most excellent *table d'hote* is provided at a very small sum; and even if the natural scientific inclinations do not lead all Guy's men to join the society, perhaps this may have some effect upon them. Again, too, another inducement to join the club is the trophies, won by both past and present Guy's men, which now adorn the walls of the club. Why, this alone makes men feel proud of it. Think, too, of the grand aid to digestion that such a sight is! At present we have three challenge cups and a shield, and one of the cups is a fixture.

The annual subscription is 12s. 6d., which continued for five years (or a composition fee of 50s.) makes one a life member. That the club has been a success is evidenced by the number of members, as there are more than 300 names on the books. The present rooms are, however, only temporary. In another year we shall hope to see the new college built, and then the club will be transferred there. Then, of course, we shall have increased accommodation generally.

On October 1st the Physical Society will have their opening meeting, and the club will then be open to all new men, and it is hoped that all at present in the Hospital who know new men entering will not only bring them to the meeting but also up to the club, where there will be numerous objects of interest exhibited, and also tea and coffee provided.

We are quite sure that the club will continue to be a success, and hope that all entering the Hospital in October will at once join, and do their part in keeping up one of the most useful institutions within our walls.

J. F.

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IS IT TRUE?—The *Monthly Journal of Science* states, on the authority of a well-informed French contemporary, that the excrements of dogs are now collected in Paris, and worked up into peptones and powdered extracts of meat.

## ADDRESS TO STUDENTS

By GEORGE H. DE'ATH, Buckingham.

GENTLEMEN,—A few words indicating my appreciation of the position I find myself in to-day, would be the most fashionable, and possibly, the most fitting prelude to this address, but with all honesty not always practised, I will abstain from so doing. I have little to tell you, I fear which is new, but I can assure you all, I deeply feel the importance of those views of your work to which I shall draw your attention.

A large number of men of varying ages and abilities are about to enter Hospital life—in a moment, in the twinkling of an eye, they will be washed along the ordinary courses of Medical procedure, until they rise to the life beyond—*i.e.* after being qualified. The aim and object of the new Student is to "pass his exams," to get qualified—and thus he either does an enormous amount of work, which he will never be able to turn to good account, or he scrapes up just enough industry, to keep him indifferently interested in his work, and enable him to wriggle through "his final." May I give a few words of advice to Students about to enter on their first year. Remember, all of you, that you can be very great men in your profession without living at the West End; that the large majority of you will have to undertake the onerous, but always honourable, duties of a general practitioner—before you have been long at the Hospital you will find yourself thinking "those G. P.'s don't know much about their work." A patient with carcinoma mammæ told me yesterday that her doctor told her the swelling was a "water tumour"—and thus G. P.'s are condemned. In passing, one word of advice, never accept as correct any patient's account of another medical man's opinion, and you will find one of the greatest difficulties of your lives will be to get scientific technicalities comprehended by the lay mind. As soon as possible after you enter try and arrange your future plans, and if you can, mould your Hospital life and course of study, in accordance therewith. If you cannot arrange plans for your future, try and work as hard as possible and get well qualified, but don't think that the possession of an M.D. London is an absolute guarantee that you will shortly be sitting back in your brougham gazing with a carefully-arranged expression at the passing throng, and appearing to the passers by, as a great physician—calm and dignified—wrapt in thought of a trascendent kind.

Your success in life will depend, not on your qualification, but on yourself. I am tempted to allude to another point, viz., what part of the Hospital course is most worthy of the attention of a man, who will probably become a general, and shall I damp your ardour too much, if I say, a country practitioner. First of all try and see a little of the kind of practice you will have to go in for. I mean if you think of settling in the country, or a small town, see the practice there. It is quite as essential as any item in your Hospital course. Before you go up for

your final, be sure to become as well acquainted as possible with actual practice in London, large towns, small towns, and villages—then you will be a well informed medical man, and not a mere hospitalized being. You will perhaps say we cannot spare time from Hospital work, and there are many difficulties—of course there are. You are entering a life beset with troubles of every kind, but difficulties are always to be attacked, and sometimes they can be overcome. Don't read for your final examination only, but try and learn your profession so that you can practice it.

Let me give you a few examples—taking Guy's Hospital for instance—the most valuable cases for ordinary medical men to see, to learn to recognise, to treat scientifically are those which over 90 per cent. of Guy's men never trouble after, namely, the out-patients who are seen by the Junior House Physician. These are ordinary every day maladies—the effects of over eating, of starvation, or bad hygienic precautions, of different neuroses, of dyspepsia, of drink, of gout, of "cold," etc., etc. It is very rare to find a man leaving the Hospital who knows as much about dyspepsia, as about colotomy. A few men see cases of early pregnancy, but most have had much more experience of the various abstruse affections of the spinal cord. Make the ordinary cases of illness, and not the most extraordinary maladies, the most interesting to you. Hospitals are filled with "rare examples of common diseases," and peculiar maladies, but you rarely see such a case admitted into the Hospital as you will constantly have to deal with in practice. You will be taught how to treat disease, but you must teach yourself how to behave to those of your fellow creatures who are unfortunate enough to suffer from different ailments. It is easier to treat a patient's malady than a patient's friends, and you must not think that "bounce" will help you except with ignorant credulous people. Don't label a series of symptoms you fail to understand as "Hysterical," or if you do, remember you don't benefit a malady by calling it by a name, and learn how to explain conditions of ill health in non-pathological language to your patient, and his or her friends.

Above all do not be so weak as to flatly oppose thoughtlessly those who possess a "little learning" about matters medical. A Doctor may teach often but never dictatorially, and he should rarely, if ever, correct. Be above insult, and do not show that you have so little dignity that you are always afraid of losing it. In studying the causes of disease, learn to interest yourself in their effects, appreciate the fact that dirt, drink, diet and drains are the causes, the effects of which you will have to fight against, and may I, though I have not been in practice more than three years, beg you to study how those influences affect children.

You will see a 100 per cent. more cases of ill health in children due to defective diet and Hygenic arrangements than you will of Hip disease, and yet most men give infinitely more time to the study of Hip disease than to the Diet of children in Health and disease.

Observe in Hospital life how marked is the differentiation of professional labour, and contrast that with the fact that you will have—in most cases—to fight disease alone. Be sure, therefore, to study carefully all the principles, and details of nursing, you will find the Sister of a Ward can teach you what will be invaluable to you in after life. With regard to any inclination to specialize you must keep such an inclination in control, and strive to be a fairly well informed specialist in every department of your work. Do not allow the wide and general comprehensive principles of the causation and treatment of disease to be ousted from your minds, by a too close attention to important but non-essential details.

Investigation is so interesting and so important, but you should not leave the Hospital with a brain stored with knowledge on the nature of micro-organisms but without an atom of knowledge on all those wondrously important facts summed up in the "Science of the Public Health." If you do not learn generally well, you will learn specially badly. I may be told I have detained you with simple truisms, but if so I shall have succeeded in my object, for to youth it is not the most simple which is the most fascinating. Observe the conditions of what is called Health. Study human nature in its normal, as well as in its abnormal state. Health is an ideal physioligical condition, but what is called Health must be understood. Study all the social effects of medicine, such as whether badness is always partly madness. You have to prevent disease, so learn how. Your whole professional life will be one long examination; study therefore how best to conduct, not merely the drugs you use, but your words and actions. See life as it is, and not merely as you think it ought to be; do not aim at mere operative success, it is not the neat carpentering of Surgery which most of you will find most useful to your fellow creatures, but the true, as distinct from fashionable, view of your science, the sense of security in the prevention and treatment of illness, which only a wide and comprehensive appreciation of physiological facts can possibly give you.

Be as certain as you possibly can, but a little dogmatism goes a long way. Treatment has not merely to be written on a bed letter, but it has to be carried out scientifically, and its success depends largely on the person who orders it.

Observe—observe—observe—Think, weigh well, study carefully, regulate your work and enjoyment, and though you cannot all leave foot prints on the sands of time, you can all be the means of adding to the happiness of individuals and to the health of the community.

## PHOSPHORESCENCE.

To those of us who have had an opportunity this summer of leaving for a time our beloved books and medical haunts, the events of our holidays will still be fresh in the memories. Perhaps nothing affords more rest and refreshment to a weary student than "a life on

the ocean wave," when he inhales, instead of a pathological atmosphere, the invigorating sea breezes, and feasts his eyes, not on morbid material, but on the living beauties and wonders of nature. One of the phenomena observed during a few days' cruise is the subject of this paper. Some may advance "sea-sickness" as a drawback to a holiday such as proposed above; but I have seen many, in spite of this, thoroughly enjoy their trip and derive much benefit therefrom. The night preceding the one of which I shall presently speak, was exceedingly rough, and many were the pale faces on deck, and still more were there, in a more or less helpless condition, below. The following morning I met with an anatomical and pathological curiosity. A passenger, about 5 feet 11 inches high, and weighing, at a very low estimate, 16 stone, was lying on the deck. In answer to the enquiries of a friend, he replied in sepulchral tones: "I am dangerously ill; my liver, lungs, and kidneys went overboard last night and I am a mere shell."

The night of which I now desire to speak, though calm and fine, was intensely dark, uncheered by the beams of the silvery queen. On looking over the sides of the vessel a lovely scene met one's gaze. Every wave that came in contact with the ship, and every ripple retiring therefrom, was brilliantly illuminated, so that the vessel appeared surrounded by a belt of blue fire. This appearance was especially marked at the bow of the vessel, the disturbance of the water there being the greatest. In this position, notwithstanding that the night was pitchy dark, a fellow-passenger was able to distinctly discern the time by his watch. Tiny creatures, disturbed by the vessel's approach, could be seen darting hither and thither, resembling miniature comets or tiny submarine rockets. The enquiring mind naturally desires to know the cause of this beautiful phenomenon. Some members of the animal kingdom, in whom phosphorescence has been observed, will first be mentioned, and then Noctiluca more fully described.

Lumbrici, various: due to fluid secreted by hypodermis.

Deep-sea Teleostei: incandescent eye-like organs.

Of the Tunicata, Pyrosoma is phosphorescent.

Gastropoda: Phyllirhoe, certain unicellular cutaneous glands.

Lamellibranchiata: Pholas, material secreted by cells along anterior edge of mantle and two spots at base of inhalent siphon.

Coleoptera: special organs in the head (Elaterida), or in abdomen (Lampyridæ).

Chilopoda: two spots on head.

Crustacea: marine Copepoda, Ostracoda, Schizopoda.

Ophiurida: dorsal aspect of arms.

Some terrestrial Oligochœta and Polychæta: unicellular hypodermic glands.

Stenophora: In vacuolate endoderm cells. The ovum, embryo and larva are especially luminous.

Anthozoa Alcyonaria: Pennatulidæ, eight cords of cells attached to gastric aspect of stomodœum.

Hydrozoa: Campanularian Hydroidea, Craspedate and Acrasped Medusæ.

Dinoflagellata: marine species.

Protozoa: Noctiluca (cystoflagellata) may attain ·5-1 m.m. ($\frac{1}{25}$in.) in size. It is a voracious animal, and floats on the surface of the sea. It becomes phosphorescent when the water is disturbed, and emits sometimes a constant feeble light. Surface of body consists of a delidate clear layer or cuticle, that is, a superficial layer of protoplasm differing in chemical and physical characters from the rest. It is here that the phosphoresence resides. There is a central depression, or peristome, at the base of which is the mouth. In front of the peristome is a flat tentacle, behind which are two ridges—one, serrated, the tooth; the other, in front of which is a flagellum, the lip. The mouth opens into a mass of protoplasm containing the nucleus. From this, branching cords, between which are large vacuoles, radiate to end in the superficial layer.

It passes into a resting state, all the organs disappearing; the central mass of protoplasm persists. Reproduction is effected by fission and gemmation. In both cases the nucleus divides first. In gemmation usually 512 spores are formed by repeated division before they become detached from the parent.

It is with the deepest regret that we have to announce the death of our Senior House-Surgeon, Mr. F. S. HAWKINS, at Four o'clock on Friday morning.

## NEW BOOKS IN THE LIBRARY.

The following works have been added to the Library since our last issue:—

On the recommendation of the Library Committee—

Erb's Electro-Therapeutics, forming vol. 6 of Von Ziemssen's "Handbook of General Therapeutics."

Rolleston's Forms of Animal Life, second edition, revised and greatly enlarged by W. Hatchett-Jackson, M.A.

Bower and Vines' Practical Botany, Part 2.

Treves' Manual of Surgery, 3 vols.

Playfair's Midwifery, last edition, 2 vols.

Morris' Anatomy of the Joints of Man.

Gray's Anatomy, last edition.

Erichsen's Surgery, last edition, 2 vols.

Treves' Surgical Applied Anatomy, last edition.

Heath's Minor Surgery and Bandaging, last edition.

Presented—

Sewill's Dental Caries and Prevention of Dental Caries, by the Author.

Habershon's On Diseases of the Abdomen, by the Author.

Miller's Inorganic Chemistry, by the Editor, C. E. Groves, F.R.S.

Vicary's Anatomie of the Bodie of Man, by the Editor, F. J. Furnivall, M.A.

Report of the Army Medical Department, by the Secretary of State for War.

## Passim.

The coming Session commences on October 1st, and it is hoped that the welcome cordially given to all new men may be repeated to them as new Subscribers to the Gazette.

Subscriptions may be paid in to the Medical Office on account of the Gazette.

The new Session of the Physical Society will be inaugurated by a paper by Dr. Lawford Knaggs, on "The Importance of the Peritoneal Effusions, (1) after abdominal operations, (2) in acute peritonitis, (3) tubercular peritonitis." Tea and coffee will be provided from 7 till 8 in the Students' Club, where the Photographs and Pathological Drawings of the past year, together with Microscopical Specimens and novel Instruments will be exhibited.

The Meeting will be held in the Anatomical Theatre, and the Chair will be taken at eight o'clock.

All old Guy's men, all present Guy's men, and all future Guy's men are cordially invited to attend.

We understand that the number of new Students who have already enrolled their names as Guy's men, is considerably in excess of those who had entered on the corresponding date of last year.

The various papers in other parts of the Gazette on the Laboratories, Museum, &c., will be read, we are sure, with much interest.

The Competition for the Entrance Scholarships closed yesterday, and we are glad to hear that there were a large number of competitors.

We would call attention to the fact that the annual subscription to the Students' Club becomes due on Monday next.

Applications for the post of House Physician and House Surgeon should be made during the first ten days of October.

The Calendar for 1888-1889 has been delayed owing to the Conjoint Board not yet having made public the dates of their examinations; it is hoped that it will, however, appear at an early date.

The First Lecture of the Session will be that on Anatomy on Tuesday morning, at 9 a.m., by Mr. Davies-Colley.

The excavations necessary for laying the foundations of the New College are, we are glad to state, being rapidly proceeded with.

## Physical Society.

With the commencement of the Winter Session the Physical Society resumes its meetings. The programme of papers to be read before the Society is an unusually strong one. The subjects chosen by those who propose reading papers are of general interest, and ought to be of interest to men of all years. As it has been suggested that in years past the papers have been too exclusively clinical, the attempt has been made this year to choose subjects which are likely to attract, not only men who have worked in the wards, but also those who have not yet commenced the more fascinating, if less exact, work, which awaits them, when they deal no longer exclusively with the dead man, or the living muscle or nerve apart from the body to which it belonged, but with the sum of uncertainties which goes to make up the diseased frame of the sentient living individual.

Various alterations have been made in the rules of the Society, and it is hoped that these are all improvements. The night has been changed back to Saturday, it being thought that more men would be able to come then, than in the middle of the week.

With regard to the prizes, the Treasurer's Prize may be gained to any member, whether qualified or not, who has not exceeded his sixth year. The prizes for papers and for the best speaker are open to all members.

The following is the Programme of the Session:—

1888—1889.

READERS OF PAPERS.

Monday, October 1st, R. Lawford Knaggs, M.A., M.B., B.C., F.R.C.S., "Peritonitis."

Saturday, October 13th, A. Ellis Durham, B.A., "Cerebellum."

Saturday, October 27th, F. Vicars, "The Dangers of Childbed."

Saturday, November 10th, F. G. Swayne, B.A.

Saturday, November 24th, S. W. MacIlwaine, "Medicine in relation to Pathology."

Saturday December 8th, F. W. Hall, "Tumours of the Thyroid Body."

Saturday, January 5th, J. M. Gill, "Uræmia."

Saturday, January 19th, E. Moss, "Surgical Diseases of the Bladder."

Saturday, February 2nd, C. F. Wakefield, "Water."

Saturday, February 16th, C. M. Kitching, "Some Compensatory Mechanisms in Health and Disease."

Saturday, March 1st, C. Price-Jones, "Parasitic Skin Affections."

Saturday, March 15th, Treasurer's Prize Essay.

THE TREASURER'S PRIZE.—A Prize of £5 is offered annually by the Treasurer. The subject of the Essay for the ensuing Session is "Pyrexia."

It is hoped that all new men will join the Society, and that all old men who do not already belong will hasten o make up for past deficiences, and that all members of the Society will make an effort to attend the meetings, and so keep up the old traditions of the Oldest Medical Society in London.

## GUY'S A HUNDRED YEARS AGO.

AT the beginning of a new session it is interesting to get a glimpse of the conditions for work at Guy's a hundred years ago. Such we have in the old MS. recently published by Dr. Charles Hawkins in the *Lancet*. As is generally known, Guy's and Thomas's were then practically one, as far as their medical schools—if they could be said to have such—were concerned. The staff of each hospital so arranged the dates of their lectures and demonstrations that the students from over the way might attend them without missing anything at their own establishment.

The students were of three classes — apprentices, dressers and pupils. The two former were always attached to a particular surgeon or apothecary, and paid their fees to him; whereas, the pupils were considered as belonging to the hospital, and their fees were shared equally by the combined staff of the two schools. The five years' apprenticeship had to be first gone through, and then the men joined either as dressers or pupils. "The dressers," says the writer of the MS., "pay £50 per annum, or £31 10s. for six months; the pupils 24 guineas per annum, or 18 guineas for six months. The pupil's business is only to look on and to make such an enquiry as he shall "chuse" of the surgeon who is then attending." An arrangement, we should imagine, which would have embarrassed the surgeon attending, but for the natural modesty of medical students, which is a thing of all ages. We are sure the "pupils" did not "chuse" to ask too many questions.

"There are not many bodies opened for examination," the manuscript goes on, speaking of post mortems, "but where we can obtain leave for an injection it is the business of the surgery man to acquaint the pupils with the intention, and all those that wish may attend."

It was also the business of the surgery man to make the pupils acquainted with every accident immediately on its arrival, for which he received the handsome remuneration of 2s. 6d. per quarter. The pupils "may quit the hospital whenever they please, and return again when they "chuse." When a pupil enters at either of the hospitals, he is considered as belonging to both, and has the same privilege at each. It is the business of the surgeon who attends to give them the best instruction he is able, without considering to whom they entered." Altogether, one is inclined to envy the pupils, until the discovery of the fact that lectures were "read every morning at half-past seven on midwifery by Dr. Lowder in the Borough." Half-past seven for lectures is just a little premature. The anatomical and surgical lectures, which seem to have been combined, were given at Thomas's, and cost seven guineas, with five guineas extra for the dissecting room; but the latter was only attended did the pupil "chuse." Indeed, the pupil seemed to do much as he did "chuse" altogether.

The chemical lectures, and those on the practice of physic, were delivered at Guy's, and cost, together with the course on materia-medica, ten guineas.

There were no house-surgeons appointed, and, presumably, nothing corresponding to house-physicians, but dressers were responsible for receiving cases. There is no evidence that the dressers were in any way senior to the pupils, but only that they paid higher fees. Probably, however, being associated with a particular surgeon, who was responsible for them, they were more reliable men. On leaving the hospital, which they might join for any period not less than six months, both dressers and pupils received a certificate shewing that they had worked there.

The contemporary writer, whom we have been quoting, complains quaintly that the word "diligently" was always printed in these certificates, and, therefore, stood as a matter of course. He thinks that the surgeon should be left to express his personal opinion as to diligence in any given case, and then "we should be less liable to advance what was not a fact." Doubtless the authorities did not care to make invidious distinctions, and so everyone got his certificate. *Tempora mutantur et nos mutamur in illis.*

## NOTES ON PATHOLOGY.

By DR. R. E. CARRINGTON.

*(Concluded.)*

### CEREBRAL ABSCESS.

When not the result of injury, is always pyæmic; at least, those cases which appear to be exceptions are so rare that in all probability some septic source has been overlooked.

*Disease* of the temporal bone or of the cribriform plate of Ethmoid.

*Pulmonary* disease, especially bronchiectasis and old empyæma, may act in the same way.

But cerebral abscess may be associated with any source of pyæmia.

*Situation.*—When due to temporal diseases, it is usually in the tempero-sphenoidal lobe or cerebellum. Often there is a layer of normal brain substance between the diseased bone and the abscess.

When due to other causes there is a special localization.

When recent, the abscess is irregular in form with shreddy ragged walls, filled with thick yellowish-greenish pus.

After a time *a capsule* is acquired; and if it is of the thickness of about $\frac{1}{4}$ in. the abscess is certainly of six to seven weeks duration. This capsule is composed of granulation tissue inside, and fibrous tissue externally.

In the course of time the *contents* alter in appearance. The pus cells undergo degeneration; and it is thought that now and then central abscesses may dry up and furnish the calcareous masses met with rarely in the brain.

ANRURYSM

Is due to embolism or atheroma, and is met with generally in one or other middle cerebral artery.

HYDATID.

The echinococcus is exceedingly rare (three cases in Guy's); has generally occurred in children. The cyst is generally barren (acephelo-cyst). In one of the Guy's cases the liver, in the other the lung, was affected. Both were quite young girls. The cysticercus cellulosæ has been found in the membranes and in various parts of the brain. It is more common than the other hydatid. The cysts are usually multiple and barren; about the size and shape of an olive.

SECONDARY TUMOURS.

Take after the primary origin, secondary to breast; also cancer, sarcoma (myeloid, &c.), enchondroma and osteoma, &c.

MENINGITIS.

We must distinguish between inflammation of the dura-arachnoid and pia-arachnoid.

*In dura-arachnitis*, the pus is found in the arachnoid cavity. If on opening the cranium or spinal canal the arachnoid cavity is found containing pus, except in a few cases we may be sure that there has been "injury or disease of the bones." The exceptions are certain rare cases of epidemic meningitis, although even this disease is a pia-arachnitis.

The common causes are—Disease of the petrous part of temporal, syphilitic caries of the calvarium; a less common cause is necrosis of the cribriform plate, which itself is often syphilitic. Fracture and injury to the dura mater may of course occur in any part.

In the case of the spinal column the cause is extensive bed-sores eroding the bones and laying open the spinal canal.

The amount of pus is often very great, and is sometimes very fœtid. As complications, thrombosis of the cranial sinuses and cerebral abscess are common.

*Clinically.* The symptoms may be a mixture of those of general pyæmia and those of meningitis.

The amount of paralysis depends on the amount of pus.

*Pia-arachnitis*, or what is generally understood by the term meningitis.

*Causation.*—Injury, pyæmia, syphilis, epidemic meningitis, acute alcoholism (?), rupture of cerebral abscess, tubercle. (Tubercle is placed last because it constitutes a special form.)

It must be remembered that the pia-mater constitutes the blood supply of the brain—both on its surface and (by means of the velum interpositum) the interior. If this membrane be inflamed, it will necessarily follow that the whole of the brain will be affected, and that, therefore, what is called meningitis is really encephalitis. In describing meningitis we must have regard to—

*a.* The surface;

*b.* Whether the vertex or base is affected;

*c.* The lateral ventricles;

*d.* The brain substance.

Meningitis *from injury* almost always affects the vertex, and the same is also true of many cases, if not all, of simple meningitis.

*Tubercular meningitis*, except in very rare cases, affects the base, and the base only.

*Simple meningitis* is also distinguished from tubercular—(*a*) by the large amount of purulent lymph effused, whilst in tubercular the lymph is almost entirely absent; (*b*) sometimes by the small amount of fluid effused into the ventricles. In both cases the inflammatory products are in the meshes of the pia-mater. The arachnoid surface is generally dry and sticky-looking. But this is due to the fact that the intraventricular pressure drives out the arachnoid fluid and to a certain amount of proliferation of the endothelial lining.

SIMPLE MENINGITIS.

1. Large effusion of greenish-yellow pus in the sulci of the vertex, and often of the base, sometimes sufficiently copious to hide the convolutions.

2. Pia-mater when stripped drags away the softened cortical grey matter.

3. The effusion of turbid fluid into the lateral ventricles usually is not great in amount.

4. White softening of boundaries of the lateral ventricles chiefly marked in corpus callosum and fornix.

5. Usually is a most acute disease of three or four days' duration.

TUBERCULAR MENINGITIS.

1. Convolutions flattened as the result of intraventricular pressure.

2. Membrane tears away the softened cortex.

3. Presence of tubercles. These are found about the middle cerebral artery; but they may spread further, and even invade the vertex.

These tubercles may be very obvious as grey or yellow grains about the size of a millet seed downwards, or they may only be ascertained microscopically.—(Fagge.)

4. The amount of lymph is *not* usually great, and is found in the (*a*) sylvian fissure; (*b*) diamond-shaped space; (*c*) and extremity of the vermiform process just where the veins of Galen join the straight sinus.

5. The lateral ventricles are usually distended, and in extreme cases 3 to 4 ozs. of clear or generally slightly turbid fluid may be met with.

6. White softening of surrounding brain substance, especially fornix and corpus callosum.

*N.B.*—In the account of white softening it was stated that this form was a mere œdema, and not a true softening. It would be more correct to describe it as inflammatory œdema, so distinguishing it from passive. No compound granular cells are met with; but there are early indications of inflammatory bodies.

## REST AND PAIN.

*(Continued.)*

In the common nerve supply of a joint and its muscles, we see a wonderful provision for the insurance of mechanical and physiological consent between the moving force (muscles) and the vital endurance of the parts moved, thus balancing motion and friction. When the latter is too great, we get pain; and this sets up a reflex contraction of all the muscles; the flexors being the stronger, the limb becomes flexed and stiffened. Another provision for rest is the thickening round a diseased joint.

In joint disease the lesion is local, and the treatment is *local rest*. Scrofula hardly ever causes diseased joints. Traumatism is nearly always accountable for the trouble, although, of course, a strumous diathesis (*i.e.*, tissue tendency), acting like any constitutional weakening cause, accounts for the disease following insignificant injury—just as in syphilitic subjects, we may have cricket-playing causing psoriasis of the hands, and riding orchitis, and so on. But the primary cause is not constitutional, and no constitutional treatment will cure hip disease. "It is by this error," says Howard Marsh, "that many of the disastrous results and hideous deformities of hip disease may be accounted for."

Analagous to the fixation of a diseased joint is the fixing of the uterus in pelvic cellulitis, of the head in meningitis. In pleurisy and peritonitis the abdominal muscles become stiffened and contracted; with this may be compared the rapidity with which the muscles contract to protect the abdominal viscera from a blow. So constant is the "board-like" condition of the muscles in peritonitis, that after operating upon a hernia a hand on the abdomen is enough to detect peritonitis.

Besides *resting* a diseased joint, we also *extend* it, by means of a weight over a pulley, or by a piece of elastic. It may be observed that extension should be applied in the direction of the limb, which will be flexed, and not in the direction of the long axis of the body. If this be not done, the femur, in the case of the hip, will become a lever whose fulcrum is at the insertion of the psoas and iliacus, and the head of the bone will be forced upwards and forwards and the acetabulum will be worn away in this position, while one of the great advantages of extension, the alteration of the points of contact of the articular surfaces, is eliminated.

We made mention of the danger of peritonitis after hernia operations; it is of the utmost importance in such instances to allow the semi-moribund bowel time to recover; opium must paralyse the gut, and only liquid food be given, while aperients should be "barred," for the bowels will act when they recover sufficiently so to do. Aston Key says: "The bruised bowel is placed by nature in a state of rest. The exhaustion in the nervous energy of the part diminishes in the muscle the tendency to contract; such inactivity should be encouraged, and not thwarted by irritating purges." No alarm need be felt at three or five, or ten, or even twenty days passing without a motion.

Let us now turn to *Pott's Disease of the Spine*. While in the *lumbar* region we get frequent micturition and the like—nature gives us a hint as to treatment—muscular rigidity is very marked,—every joint is made to act as a "spring" to minimise "jars." The back is never bent, the patient won't "stoop" to pick up anything, but, like the tightly-laced young lady, "squats" to do it, and for the same reason very much. The breathing is conducted with the minimum amount of motion to the body, and so we get dyspepsia and short grunting respiration.

The main idea for local treatment is *extension*, to take the pressure of the collapsing vertebræ off the nerves, as they pass outwards and *rest* to stop and repair the mischief already done. The bodies of the vertebræ cannot support the trunk, and so the pressure must be put upon the healthy transverse processes. It is impossible to go into a description of Lewis Sayres' treatment; his jacket is familiar now, and its efficacy is wonderful. It immobilises the spine, distributes the pressure, is healthful, allows fresh air and so on to be enjoyed, is easily applied, and is cheap.

So far, we have only made use of surgical instances of the powers of rest, but the principle is equally true and useful in the so-called medical cases—for example, in respiratory diseases. In pleurisy, to keep the structures involved quiet, we strap the chest, and stop hard breathing and talking. Then we can check the admission of irritating gases by using cold or warm or moist air—for instance, the familiar steam kettle.

*(To be continued.)*

# Sport.

## RUGBY FOOTBALL.

As Football is once more close at hand, a few words on our prospects for the coming season would no doubt be of interest to our supporters. In the first place we are losing three of our last year's team, viz., H. M. Jordan and H. L. Evans, both of whom were invaluable to us at three quarters, and whose places will not easily be filled, and A. D. Fripp, our last year's Captain, a heavy forward who will be very much missed. Respecting the two vacant places at three quarters, we must rely on H. V.

Barr to fill one. He showed great promise last year, and we expect him to come on considerably this season, especially if he will learn to kick with more precision. We must hope some new man will turn up to fill the other place.

We shall still have the same two half backs, who ought to get on even better than they did last season if they only play more together.

Our pack of forwards should be very good, seeing that we are only losing one man, and two or three of last year's team came on wonderfully towards the end of the season. There must be more combination and less individual play to enable us to get through our strong list of fixtures creditably. It is to be hoped that men will give Guy's the preference, and not play for other clubs, as several of our best men have done of late years. The only way for us to get back the Challenge Cup is to play the same team regularly throughout the season, and unless men will give up outside clubs this cannot be done. That the matches are not good enough they cannot make an excuse, since we have a very strong match card arranged.

There will be a Trial Match on Thursday, October 4th, at Raynes Park, on our new ground. Notices of this will be posted in the colonnade. All new men who have played Rugby, or have a desire to begin, are earnestly invited to play, as there is always a chance for a fairly good man to get a place in the team, if not in the First XV., in the Second XV. The list of matches arranged for the latter are of a much higher class than last year's, and it is to be hoped that we, if posted to play, will not scratch on the day of the match or the day previous, but will do all in their power to play.

Below is a list of the fixtures for the coming season:—

First XV.

| | | | |
|---|---|---|---|
| 1888. | | | |
| Oct. | 4 | Trial Match ... | ... at Raynes Park |
| ,, | 6 | Dulwich College ... | ... ,, Dulwich |
| ,, | 13 | Kent Rovers ... | ... ,, Dulwich |
| ,, | 20 | Croydon ... ... | ... ,, Croydon |
| ,, | 22 | Huddersfield ... | ... ,. Raynes Park |
| ,, | 27 | London Welsh ... | ... ,, Raynes Park |
| ,, | 31 | East Sheen ... | ... ,, Raynes Park |
| Nov. | 3 | Kensington ... | ... ,, Wood Lane |
| ,, | 10 | Bradford ... ... | ... ,, Bradford |
| ,, | 17 | Clapham Rovers ... | ... ,, Wandsworth Com. |
| ,, | 28 | Coopers Hill ... | ... ,, Egham |
| Dec. | 1 | Newport ... ... | ... ,, Newport |
| ,, | 8 | Queen's ... ... | ... ,, Eltham |
| ,, | 22 | Blackheath ... ... | ... ,, Blackheath |
| 1889. | | | |
| Jan. | 5 | London Scottish ... | ... ,, Brondesbury |
| ,, | 12 | London Welsh ... | ... ,, Raynes Park |
| ,, | 16 | Old Leysians ... | ... ,, Raynes Park |
| ,, | 26 | Old Merchant Taylors | ... |
| Feb. | 2 | Kettering ... ... | ... ,, Kettering |
| ,, | 13 | East Sheen ... ... | ... ,, East Sheen |
| ,, | 16 | Lond. International College | ,, Isleworth |
| ,, | 23 | North Hants ... | ... ,, Northampton |
| Mar. | 2 | Blackheath ... ... | ... ,, Blackheath |
| ,, | 16 | Richmond ... ... | ... ,, Richmond |
| | | Sydenham ... ... | ... ,, Sydenham |
| ,, | 23 | Rosslyn Park ... | ... ,, Raynes Park |

Second XV.

| | | | |
|---|---|---|---|
| 1888. | | | |
| Oct. | 13 | Sutton ... ... | ... at Sutton |
| ,, | 20 | St. Bartholomew Hosp. II. | ,, Raynes Park |
| ,, | 27 | Croydon II.... ... | ... ,, Croydon |
| Nov. | 3 | University College Hosp. II. | ,, Raynes Park |
| ,, | 10 | St. Thomas's Hosp. II. | ... ,, Lambeth |
| ,, | 17 | Queen's II, ... ... | ... ,, Raynes Park |
| ,, | 24 | Bank of England ... | ... ,, Raynes Park |
| Dec. | 1 | Middlesex Wanderers II.... | ,, Raynes Park |
| ,. | 8 | London Hospital II. | ... ,, Blackheath |
| 1889. | | | |
| Jan. | 5 | Marlborough Nomads | ... ,. Surbiton |
| ,, | 12 | St. Thomas's Hosp. II. | ... ,, Raynes Park |
| ,, | 19 | Sydenham II. ... | ... ,, Sydenham |
| ,, | 26 | Rosslyn Park ... | ... ,, Raynes Park |
| Feb. | 2 | Middlesex Wanderers II.... | ,, Richmond |
| ,, | 9 | Sutton ... ... | ... ,, Raynes Park |
| ,, | 16 | Surrey Wanderers ... | ... |
| ,, | 23 | Bank of England ... | ... ,, Raynes Park |
| Mar. | 2 | Eardley Park ... | ... ,, Belvedere |

## ASSOCIATION FOOTBALL.

### PROSPECTS OF THE SEASON.

The coming season promises to be most interesting as far as regards the future of Association Football at Guy's. It is the last time that the original members of the team can play for us. After this season all those veterans, who have won the Challenge Cup since it was set going, will be out of their year. Again, most of these players, who have done so much for the Club, have now very little time to devote to their regular matches; so this season we must depend very much on fresh talent. This has, unfortunately, either been powerfully lacking the last two or three years, or else so modest as to escape observation. During the last four years, our mainstays have been Holman, E. J. D. and G. W. Mitchell, A. T. Brown, S. Woodhams, C. D. Muspratt, H. B. Bolus, and A. C. Roberts; and all of these, except the last named, will probably be available once more for the Cup Ties. The year before last, C. G. Roberts and F. H. Brown turned up, but it seems that neither of these will be available again, though, indeed, it is to be hoped that the rumours which assert that Roberts will not play again are unfounded. Last year, Austen-Smith was the only fresh accession to the regular players, though W. G. Mitchell's services, when he could spare the time to play "Socker," were most valuable. This year, Bradly will be available in the Cup Ties and Sturges-Jones has come back to act as secretary again.

In regular matches, indeed, we had not that success last year that we might have expected. It so happened that there was a lack of enthusiam about first and second year men, when session men could not play, and consequently much trouble in getting teams up. If this spirit shews itself this season, it will be a very bad look-out for the future. A hospital club like ours ought to have plenty of men ambitious of getting in the Cup Tie team, and the only way of doing this is to play as often as possible in the regular club matches. Such men ought to find their opportunities, in the reasons which

prevent regular members playing, and in this way bring themselves to notice. At any rate, it is hardly creditable to a club not to be able to raise a single XI., as happened at least once or twice to us last year.

We certainly shall not be able to get decently through our card this year, although that is not a particularly strong one, unless every man who plays Association football at all, endeavours to give his services to the club as often as possible. There are some twenty matches already arranged, and while some of them,—*e.g.*, Old Wykhamists, R. M. A., and London Caledonians—are against strong clubs, yet in the majority of the others we ought easily to hold our own, and to give plenty of opportunities for new players to get well together. There are as well ten 2nd XI. matches; so, taking it all round, there will be plenty of chance for anyone, who wishes to play Association, to make his mark. All such are especially requested to put their names down for the Inter-Hospital game to be played at Raynes Park, on Saturday, October 6th. It is, indeed, just the time for fresh men to come out, for the very existence almost of the club depends on their exertion, and it would be a great pity, to say the least of it, if we had to take a back seat amongst the hospitals next season.

We ought to have a good try for the Surrey Cup this year. Last year it was bad luck that went against us rather than any fault of our own. The rules, too, of the Surrey Association are rather unfair to Hospital teams, and it is quite time that we should send a regular member to the Surrey Committee.

What we really want this season is to see fresh forwards trying to play a good continual game in every club match, and especially getting in the way of passing the ball, so as to enable a fairly long running shot to be made at goal. Passing on a goal-line is a delusion and a snare.

## GUY'S ATHLETIC RECORD.

In the *Lancet* of 8th September, there is an article on Hospital Athletics, from which I have made the following summary. It seems to me that as a rule it takes a full year for a freshman to get cognizant of the reputation he will, in his turn, have to keep up. Would it not be as well for freshmen to see and realise now how facile princeps we are, and what the standard is for them to equal or excel.

| Hospital. | Athletics. | Rugby F. | Crkt. | Assoc. F. | Rowing. | Lawn Tennis. | Cross Country. | Total. |
|---|---|---|---|---|---|---|---|---|
| Guy's | 5 | 4 | 5 | 4 | 0 | 0 | 0 | 18 |
| St. Thomas' | 5 | 2 | 0 | 0 | 1 | 0 | 1 | 9 |
| Barts' | 5 | 2 | 0 | 0 | 0 | 0 | 1 | 8 |
| George's | 3 | 3 | 0 | 0 | 2 | 0 | 0 | 8 |
| London | 1 | 2 | 0 | 0 | 1 | 0 | 0 | 4 |
| Middlesex | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 3 |
| King's | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |

To these figures have to be added the results of the Rifle Shooting for the Inter-Hospital Cup, which would, I suppose, bring St. Thomas' into second place, but could not alter the position of No. I. Out of 53 contests Guy's have won 18 times, or about once in every three contests. In addition to these, the Surrey County Challenge Cup and Challenge Shield swell the list of trophies by two out of three competitions.

## CRICKET.

The next number of the GAZETTE will contain the list of the amounts which were collected last session to enable us to buy the Inter-Hospital Challenge Cup, since it had been won by us for four successive seasons. The new cup has become also our property, but only for the year, and will be seen shortly up in the club; the delay having been due to some forgetfulness on the part of King's in regard to the composition of their winning teams. On the pedestal of this new cup, the names of all the victorious elevens since its origin in 1884 (?) are to be engraved, together with the inscriptions of those on the old. This is a step in the right direction. A drawback, however, exists, for the Inter-Hospital Committee seemed very reluctant to allow of the cup being again won outright, and probably will change their rules this next season, following the lead of the Athletic Committee, and decide that the Challenge Cup shall only be the property of the Hospital winning it for a year.

We are again losing some valuable men this season, and it is now our duty to impress on fresh arrivals the necessity for them to strive to keep up the old reputation and do as well, if not better, in the cricket-field than their immediate predecessors.

Our mainstay in bowling, E. J. D. Mitchell, has finished his four years' cricket course after a rather varied experience. Three years ago, he distinguished himself ss a bat and was most useful in the Cup Ties; but during the last two years he has been very unlucky for the Hospital; making up, however, for his deficieucy by his bowling, and becoming as prominent in that department as he had been in the other. J. H. Roberts and G. Featherstone are also now beyond their time; the former, a capital left-handed bat, a fair change-bowler, and a brilliant field, when he liked; and the latter, a very useful energetic all-round man.

During this past season, our team was very weak in bowling, the Brothers Mitchell having to have by far the lion's share; and as our cry was in May, Pia Mater, so it will be again next spring. We can only trust that among the men fast coming up to the Hospital, there will be some keen cricketers, as a couple of good bowlers would be invaluable.

The second eleven improved considerably last season on its form in the previous one, and with careful management ought to turn out some good material for filling vacancies in the first. One point should be impressed, we consider, on the new Secretary, whoever he may be, and that is the advisability of playing only one whole-day match a week, leaving the Wednesday match to be a half-day against some weaker club, in which members of both elevens can take part. This arrangement ought to allow of more material to be chosen from, and ought also to deliver the prominent cricketing members of some responsibility, thus permitting them to devote their whole energies to winning their Saturday matches, and, since union is strength, go a long way towards insuring their success for the Cup next year.

# In Memoriam.

*"They are upborne from the field on the slumberous pinions of angels*
*Unto a far-off home, where the weary rest from their labours,*
*And the deep wounds are healed, and the bitter and burning moisture*
*Is wiped from their generous eyes."*

Francis Stanhope Hawkins was born in 1861, being the son of the Rev. R. Hawkins, of Lamberhurst, Kent, and thus a member of a family well known in the history of English Surgery. As a boy he was educated at Tonbridge School, until in 1879 he matriculated at Oriel College, Oxford. He graduated in Arts in 1882, and joined Guy's in October of the same year. He soon began to make his mark as a man of promise, gaining a certificate in the First Year's Prize Examination, and in the next year being placed *proxime* for the Michael Harris Prize. In his fourth year he gained the Second Prize. Meanwhile he had passed the primary examinations for the Oxford Degree in Medicine and for the Fellowship of the College of Surgeons. In 1887 he completed his graduation in Medicine at Oxford, and in the autumn of the same year took his Fellowship of the College of Surgeons, attracting the general notice of the Examiners by his brilliancy.

Meanwhile he had been holding various Hospital appointments in rapid succession, dressing for Mr. Jacobson and Mr. Davies-Colley. Early this year he was appointed Charity, and in May came on as House Surgeon.

All who knew him will long remember the energy and vitality with which he attacked whatever task he had taken in hand, and those who knew him better will recall how laborious and thorough was his system of reading, it being hardly an exaggeration to say that he had analysed on paper every book he read. Such a man was necessarily sound in the "bookwork" of his profession, but Hawkins was moreover a keenly practical man, bringing to bear on every question shrewd common sense.

It is no disparagement to others to say that Hawkins, when Senior House Surgeon, made himself more intimately acquainted with the numerous cases, whose treatment he had to supervise, than many have been able to do, and in him Dressers felt they had a reliable adviser. With his patients he was deservedly popular, and by the children he was especially beloved.

The end of so useful a life was sudden; after a few days ailing he definitely took to his bed, going into John Ward, on September 24th. The disease increased in severity daily in spite of the most devoted nursing and attention, and after four days of intense suffering, endured with the greatest fortitude, he died on the morning of Friday, September 28th. On Monday morning, at 9 a.m., his coffin was borne to the Chapel followed by all the Residents, the Sisters, and most of the Nursing Staff, and the first part of the Burial Service was read, a short address being given by the Vicar of Bermondsey. It was then carried out of the Hospital gates to be conveyed to his home in Kent for burial.

The flowers with which his coffin was covered were but a poor token of the sorrow that his loss has caused, nor will the memorial tablet that is to be erected in the Chapel be needed to keep his memory green in the hearts of many.

## CHRONIC GENERAL ARTERITIS.

Ann M., æt. 45, was admitted to the Bolton Infirmary, February 16th, 1888, suffering from gangrene of the left foot.

No history of anything wrong could be obtained anterior to nine weeks before admission, when patient is said to have suffered from inflammation of the lungs and bronchitis; nor was there

any history of syphilis or rheumatism. Four weeks later, on getting up one morning, she found the right foot extremely painful and colorless and was unable to stand on it; the left foot was soon after similarly affected, and in a few days they both got well again. Three days before admission the left foot again became extremely painful and discoloured on the outer side. When first seen both feet were cold, and the left, together with the leg and thigh up to the groin, very painful, the 4th and 5th toes, an inch or so of the foot posterior to them on this side, were of a purplish-red colour. Neither artery in either foot could be felt, and the pulse was scarcely perceptible at the wrists and could only just be felt in the temporals, the rapidity of the heart's beat, as counted by sound, was something over 180, and no bruit could be heard. No pain anywhere except in left leg and foot.

*Urine*—acid, 1017, containing urates and a slight amount of albumin; on adding strong ammonia, phosphates were thrown down and the fluid became of a bright cherry-red colour (Eurerythrin?).

In order to relieve the heart, nitroglycerine and strophanthus were administered every four hours, and after six doses the pulse was irregular and about 150.

The next day the pulse was 140, less irregular, and easily felt at the wrist but not countable, and the following day it was reduced to 106.

The foot became more dusky, and the 4th and 5th toes, and a patch of skin on front of the tibia, black and dry; the pain was now confined to the foot, no sensation below the ankle. During the next six days the pulse varied from 100 to 120, and was more or less irregular. As felt at the wrist it did not agree with the heart-sounds, some of the beats seeming to be dropped; the gangrene in the meantime slowly extended.

February 20th. There was sudden pain all down the right leg, patient greatly frightened. Cough becoming very troublesome, wheezy rhonchi heard at upper part of right chest, left upper part dull, vocal and tactile fremitus absent. March 9th. Urine contained one-fifth albumin, no reaction with ammonia, some œdema of right leg, considerable congestion about perineum, diarrhœa and vomiting. 11th. Pulse 88 regular, complained of curious numb feelings all over. Less albumin in urine on 12th. 13th. Loss of appetite, sleeps very badly, seems very anxious about herself. 14th. Becoming noisy and extremely irritable, is anxious to be helped to die. 15th. Hands cold, breathing of a gasping character, pulse irregular, can not now be felt even in the femorals, complains of abdominal pain since she attempted to get out of bed in the morning, became gradually worse and died at 4 a.m. on the 16th.

*At the Autopsy.*—Double pleurisy with fluid was found and the right lung was adherent to the parietes in places; the left was much compressed, and there was a good sized infarct in the anterior part of its upper lobe and another in the lower. The heart weighed 14½ ounces, the left ventricle being hypertrophied and the auricle dilated, its appendix was filled with an ante mortem clot. The right ventrical seemed to be normal, and its auricle was much dilated and hypertrophied. The mitral valve was thickened and the orifice would only admit one finger; the other valves appeared normal. There was no pericarditis, but a well-marked milk patch. There were a few atheromatous patches in the commencement of the aorta, but none at the arch. There was peritonitis with fluid and recent lymph; a good deal of the latter in Douglas pouch. The intestines were congested and inflated, the stomach appeared normal. Liver weighed 50 ounces, and was extremely fatty and fibrous; under its capsule posteriorly was a cavity, of about four ounces capacity, stuffed full of empty breaking-down hydatid cysts, varying in size from a pin's head to a billiard ball. The spleen was hard and weighed nine ounces; and the kidneys were small and pale, one of them containing a large

infarct, caseating in places. Both the common iliacs contained adherent blood clots, that in the right, being the more organised of the two. The right femoral was much attenuated with thickened walls and lumen, and the left appeared thicker, but its lumen was only slightly greater than the right, and was blocked with an adherent clot. The brachial and tibial arteries were similarly thichened. Unfortunately the head was not examined.

This case, beyond the fact that it turned out to be a veritable museum of pathology, is of special interest in that chronic general arteritis is a rare disease, and according to Wilks and Moxon, generally occurs in young and vigorous persons; these authorities, too, point out its coexistence with fibrous myocarditis in the left ventrical, and, in the case before us, there was extreme stenosis of the mitral orifice; and although the heart was carefully auscultated daily, in order to count the pulse, no bruit was at any time heard.

## OTITIS MEDIA—ABSCESS ABOVE AND BEHIND EAR—CEREBRAL ABSCESS—GENERAL SEPTIC MENINGITIS—TAPPING ABSCESS—DEATH.

The following is one of several interesting cases which have come under my notice during my dressership to Mr. Howse, to whom I am indebted for permission to publish notes of the above cases. I might also add that Mr. Howse gave his first clinical lecture this session upon the above case.

M. E., æt. 12¼ years, was admitted on Tuesday, 18th September, into Charity Ward.

*Family history.*—Good.

*Previous history.*—Mother states patient had "low intermittent fever" four years ago, and an abscess in her left ear (the seat of the present trouble) fourteen months ago. The latter trouble got well in a short time without the doctor's aid.

*History of present disease.*—Two weeks ago the patient complained of pain in her left ear, but her mother covered it up and sent her to school until the end of the week, when she kept her at home, applying fomentations for another week, and then brought her to the hospital.

*Condition on admission.*—Complains of great pain at times. The swelling extends for 3 inches above the ear, 1½ inches behind and below it, and 1½ inches above and in front of it. It is red, tense and fluctuating. It appeared at first to be superficial to the temporal fascia, but this was not the case. A copious yellow and extremely offensive discharge runs from the ear.

Wednesday, 19th September.—$CHCl_3$ was given. Hair was shaved for some distance round the abscess, as well as over it. Some thick pus was removed from the external ear, and immediately pus began to run very freely from the external meatus. The ear was syringed out with carbolic lotion, and the skin over the abscess was washed first with liquor potassæ and afterwards with carbolic lotion (1-40).

Mr. Howse allowed me to make a nearly vertical incision 2 inches long, about ¾ inch above and behind the ear. Immediately 6 to 8 ounces of the most offensively-smelling pus gushed out, owing to the tense condition of the swelling, over one or two of us. On passing my finger through the opening, the bone was found to be bare for some distance forwards and in fact over the whole area in which we had previously obtained fluctuation. The wound was thoroughly washed out with a carbolic lotion and stuffed with strips of gauze. Gauze dressing and bandages were then applied.

Thursday, 20th.—Quite easy to-day, and slept well last night, the first time for a fortnight. Appetite good.

Saturday, 22nd.—Dressed every day. To-day Mr. Howse saw the patient dressed, and she sat up in bed, being quite cheerful and not complaining. Very little discharge. Wound looking healthy.

Sunday, 23rd.—Somewhat drowsy this morning. Did not complain at all. On being asked if she had any headache, she said she had a little yesterday and also to-day. T. 98·4.

2 p.m. Continues in same drowsy condition, and will not talk to her mother. T. 99·6.

4 p.m. Complains when disturbed; pupils, unequal; left pupil more dilated than right; pulse, slow.

8 p.m. Left pupil still dilated; pulse, quicker, 78; temperature rising, and at 6 p.m. it was 101°. "Sister" says the patient vomited once about 2.30 a.m., and again this afternoon. Drowsiness more marked, and more difficulty in rousing patient. Conscious, but asks to be left alone. Cornea rather hazy; left optic disc slightly congested, but no optic neuritis. No cephalic cry; no opisthotonus. When I asked her a question she would not reply, and it was only after asking her two or three times that I got an answer, and then very slowly. Thinking this might be a case of cerebral abscess, I asked the House-Surgeon to see her.

9 p.m. Less conscious. Mr. Arbuthnot Lane was then asked to see her. At the time I could not understand the pulse becoming quicker and the temperature rising, if it were a case of cerebral abscess and then meningitis suggested itself.

9.30 p.m. Unconscious. Rapidly getting worse. Inspirations at long intervals, and stertorous.

9.45 p.m. Mr. Lane saw the patient, and considered it to be a case of cerebral abscess, which had probably ruptured into the lateral ventricle within the last hour. This seemed probable from the suddenness of the unconsciousness, and the marked change in her condition.

10 p.m. Inspirations at very long intervals, and each seemed as if it would be the last. Patient's friends were communicated with, and it was not until 11.30 p.m. or 12 a.m. that we were able to get the mother's consent to operate. Nostrils working. The "Sister" noticed slight twitching of the left side of face at dinner time. The patient was carried into the Theatre in a moribund condition. The parts were washed with $HgCl_2$ (1-2000). No anæsthetic was administered. Bone was gouged just above mastoid process. Dura mater appeared normal. Hypodermic syringe needle plunged into tempero-sphenoidal lobe through D.M. The syringe immediately filled with pus, having the same foul smell as that which came from the ear. About three or four ounces were drawn off, and the abscess cavity was washed out with boracic lotion ($2\frac{1}{2}$%). Drainage tube put into abscess cavity and brought out through a hole made in the hemispherical flap. The latter was completely closed with white sutures; dressed with Sal-alembroth gauze. The breathing, as well as the colour of the face (which was livid), improved immediately the abscess cavity was opened. Conjunctival reflex, which was absent when operation commenced, now returned. Patient flinched a little while the wire sutures were being put in. The alæ nasi collapsed at each inspiration, and therefore a small drainage tube was put into each nostril.

Monday, 24th. 2 a.m. Temperature, 103·2°. Condition slightly improved.

3 a.m. Patient getting worse; pulse, quick, feeble; respiration at long intervals and prolonged. 3.15 a.m. Death.

*Post Mortem.*—Cerebral abscess in middle of temporo-sphenoidal lobe. General septic meningitis, walls of the abscess were shaggy, cortex of brain over abscess was healthy, except where drainage tube entered and here there was slight ecchymosis, but this was not present before the puncture of the brain. Bone forming roof of tympanic cavity was sclerosed. Dura mater not affected. Extensive disease of the middle ear. Membrana tympani absent. No thrombosis of lateral sinus.

*Remarks.*—Mr. Howse suggested that the "low-intermittent fever" spoken of by the mother was most likely either measles, diphtheria, or scarlet fever, probably the latter. While on this part of the subject it might be mentioned that we should expect several cases of otitis media to present themselves owing to the late epidemic of scarlet fever. In this case the membrana tympani was gone, but when it is present we get offensive pus in the middle ear on account of its connection with the air by means of the mouth, pharynx, and Eustachian tube.

The abscess outside was due to inflammation extending to the mastoid cells and by continuity to the periosteum covering the mastoid process. Mr. Howse discussed modes of origin of cerebral abscess after otitis media.

(1) Simple extension of inflammation from the middle ear to the dura mater and from this to the cortex of the brain.

(2) Mr. Toynbee, 25 years ago, mentioned another mode of origin, viz.: Septic phlebitis, extending from the walls of the tympanic cavity into the substance of the brain, and there setting up an inflammatory process in the white matter.

Here the dura mater of the petrous bone may show but few signs of disease and the serous covering of the encephalon be perfectly normal to the naked eye; there may even be sound cortex between the arachnoid and the cavity of the abscess.

When separating the meninges from the brain one may notice many very fine chords running from one to the other. Mr. Howse stated that most likely several of these were veins and along these the inflammation spreads from the middle ear to the brain (therefore all blood is not returned by veins of galen). Course in this case was probably from about the middle of the tempero-sphenoidal lobe to the superior petrosal sinus and thus to the middle ear. Sometimes it travels by the D.M. about the roof of tympanum or by the petroso-squamosal suture. The abscess is consequently set up by "a retrograde phlebitis."

Septic inflammation of lateral sinus and thrombosis may take place as in Mr. Lane's case in "Clinical." Here the lateral sinus was opened and internal jugular vein tied.

These cases may result in abscess of the lungs by means of emboli carried down through internal jugular to right side of heart. Mr. Howse doubts (although it has been stated) whether any emboli get through lung capillaries to left side of heart and thus to brain.

Mr. Howse touched upon the responsibility of a case of this kind in private practice. In these cases note if any œdema and tenderness over mastoid process. Examine ear with aural speculum. If membrana tympani be not perforated open by vertical incision behind malleus, and transverse below it. Freely drain middle ear. There may be polypoid granulations or œdema of the passage or even a sclerosed condition of the bones, blocking the meatus. If the symptoms persist and the meatus remains impervious, open the mastoid cells and drain this way. All that is necessary in more than half the cases is simply an incision over the mastoid process. Amount of discharge is important. If free, wash out and leave, but if meatus blocked and no discharge, do as stated above. Mr. Howse's reason for not opening skull in this case was the great probability of setting up a septic meningitis by the contact of the very fœtid pus with the dura mater, and also on account of there being no symptoms to call for further operation at the time.

He also stated that there is not much danger in opening the skull and puncturing or manipulating the brain, nor is there much danger of hernia cerebri if a cross way suture is used to bring the edges of the dura mater together after having opened it. With regard to vomiting in cases of cerebral abscess I believe Sir William Gull found a record of it in about 18 per cent. of the cases.

HERBERT V. HICKMAN.

## POEM (In Memoriam).

"*Hic breve vivitur, hic breve plangitur, hic breve fletur;*
*Non breve vivere, non breve plangere retribuetur.*"

Bernard de Morlaix (The Celestial Country).

Once more has Death been busy in our ranks,
Another at his post has bravely fall'n,
Fighting a hard-fought fight 'gainst fell disease,
Fighting to wrest its victims from its grasp,
Falling himself so early in the fight.

Bravely, without complaint, he met his fate,
Not murmuring at the Power that called him hence,
Leaving a vacant place within our ranks,
Leaving the aching void in many a heart.

We, who are left to-day to mourn his loss,
Have known him and have learned to love him well:
Have loved him, aye, for he was worthy love;
Do mourn him, aye, for we shall feel his loss.

We worked with him and came to know his worth,
His zeal, that never flinched at Duty's call,
His skill to know and cure the sufferer's pain,
Or smooth the rugged path of lingering death.

We shared his pleasures, heard his merry laugh,
Felt the bright genial warmth his friendship gave,
Felt his quick thought flash out to meet our thought
Ere it was uttered, while in leisure hours
We talked with him on many a varied theme,
Nor failed to gather knowledge as we talked.

Whate'er he found to do, he did it well,
Sparing nor time nor toil to gain his end:
Courteous to fellow-workers, kind to all he met,
"Thorough" his watchword, and his standard "Truth,"
How could he fail to be admired and loved?

Not for his own sake do we make lament,
Feeling the truth, "Whatever is, is best;"
Only we think that we shall nevermore
Walk side by side along Life's chequered path,
Sharing with him our pleasures and our toils,
And sorrow fills our hearts as thus we muse.
The daily round of duties comes and goes,
The World moves on, and others fill his place,
And do his duties—but within our hearts
Is left that void, which none but he can fill.

When in the last great day the trump shall sound,
And when the last great muster roll is called,
When friends again shall meet upon that shore,
Where parting, pain and grief can never come,
Then in the foremost rank may he be found
Of that great army clad in glistering white,
That fought against the dire disease of sin,
That triumph with their Leader evermore.

*October 1st, 1888.*

# Passim.

We are glad to learn that the entries up to the present time have reached the number of one-hundred and two.

The next meeting of the Physical Society will be held in the Chemical Theatre to-day, when Mr. A. E. Durham will read a paper on the Cerebellum, we trust that the change from Thursday to Saturday will ensure an especially large attendance.

We congratulate the winners of our open Scholarships.

The Scholarship in Arts has been awarded to Mr. J. B. Leathes of Rochester.

The Scholarship in Science has been awarded to Mr. W. J. Johnson of Shefford, Beds.

## A CASE OF OPIUM POISONING.

At 4 p.m. on Monday, September 24th, a man was admitted in an insensible condition, with the following history.

Had been a teetotaller until three weeks ago, when he suddenly took to drinking hard and continued so to do till two days before admission, when he as suddenly left off, became irritable and depressed, and Monday 24th one hour before admission he called on a practitioner ostensibly to consult him; whilst waiting in his surgery, he, unknown to the Doctor, took a 2 oz. bottle containing pulv opii which was found on his person a short time afterwards and judging from what remained in the bottle, patient had taken ʒiij.

*On Admission.*—Patient was a fine well-built man, æt. 39. He was in a comatose condition, face dusky-colour, pulse 80, full and bounding, breathing stertorous and slow. Pupils pin-point and inactive to light, conjunctivæ insensitive, Sweating profusely. No relaxation of sphincters. No amount of irritation could rouse him.

An injection of atropine gr.$\frac{1}{25}$ was given immediately, œsophageal tube passed and stomach washed out with a pint of warm water, which on returning was coffee coloured, grumous, and smelt strongly of opium. Patient then suddenly stopped breathing; the tube was quickly withdrawn, artificial respiration employed, faradic current applied, one pole placed over phrenic nerve, the other over diaphragm, and an injection of strychnia gr.$\frac{1}{30}$ was given. After about a minute and a-half patient rallied. The current was continued, tube passed again, stomach well washed out and one pint and a half of strong coffee passed in. Hypodermic injection of atropine gr. $\frac{1}{30}$ repeated. The interrupted current was vigorously applied from admission till 8.30 p.m. with not much result, two injections, one of atropine and one of strychine, gr. $\frac{1}{30}$ each having been repeated.

At this hour patient failing to respond to the current, the external popliteral nerve of left leg was underrun with a needle one pole of the battery being fixed to it. The effect was instantaneous, he started up and struggled violently and it was with great difficulty that the left leg could be kept immovable, he also muttered a few unintelligible words. Three-quarters of an hour of this treatment brought him round fairly well, so that at 9.30 p.m. he requested that we should cease, and, asking for a drink, coffee was given through œsophageal tube; his pupils reacted sluggishly, he was not sensible enough to know where he was or what was happening. Stimulation of left popliteral nerve was discontinued, but was followed by speedy relapse into total insensibility. Atropine gr. $\frac{1}{25}$ repeated and current reapplied and kept up till 10.30 p.m., when pulse and respiration began to fail and to all appearance he was dying.

Brandy ♏ xl. injected and strychnia gr. $\frac{1}{30}$ and patient removed into bed, the electric current still being applied over region of diaphragm. After a quarter of an hour patient rallied in a most

remarkable manner, opened his eyes, pupils dilated, asked where he was, and fancied he saw spiders round his bed and presented the appearance of a commencing attack of delirium tremens; becoming noisy at 11 p.m. he was removed to the strong room, where, after a short time, he fell into a natural sleep and woke up perfectly sensible, just before 1 a.m., complaining of feeling sore; and confessing to having taken opium. He slept at intervals till the morning, and was removed back to John Ward at 8 a.m. apparently recovered from opium, but rather collapsed. 9.30 a.m. pulse began to fail, and notwithstanding injections of brandy and ether he sank and died at 10 a.m. T. 100° all through.

*Autopsy.*—2 p.m., rigor mortis not marked. Face deeply congested.

Both lungs engorged with blood. Kidneys slightly congested, otherwise healthy. Stomach ecchymosed at cardiac extremity; contained a pint of yellow grumous material, which on examination was found to contain no morphia.

Bladder healthy; contained about half-pint of urine, which on testing by the following method was found to contain morphia:—[Render the urine acid, add two or three drops of iodic acid, shake up, then add some chloroform; marked pink coloration at bottom of test tube indicates morphia, confirmed by adding ammonia which renders supernatent urine dark brown and decolorizes the chloroform at bottom of test tube.] Urine also contained blood. No sugar. Brain hyperæmic, no hæmorrhages.

Other organs healthy. Marked post mortem staining of arteries and endocardium.

It has been stated by some authorities that when a patient dies suddenly a few hours after apparent recovery, it is due to hæmorrhage into the fourth venticle, and that the urine will be found to contain sugar; in this case, though hæmorrhage was carefuly looked for, none was detected.

PETER PAGET.

# Physical Society.

The opening meeting of this Society took place on the 1st inst., and was in every way successful. Coffee was served in the club rooms, and various objects of interest were on view, which latter received every attention from members and friends, previously to the adjournment for listening to Mr. Knaggs' paper.

Messrs. Down Bros., showed a large exhibit of instruments, amongst which the endoscope attracted especial attention. Mr. Stanley showed photographs and microscopic specimens. Amongst the latter were examples of Actinomycosis and Bilharzia. In addition to these exhibits there was an admirable photographic collection and the artist's drawings.

To hear the paper, both old members and new comers attended in force. Mr. Bryant, who had been asked to take the chair at the eleventh hour, owing to the unavoidable absence of Dr. Wilks, spoke a few words of welcome, especially to new men. There could be no better place, he said, in which to meet together for the first time, than the quarters of the "Physical," that oldest of scientific societies. The speaker then referred briefly to the distinguished past of the Society, and mentioned some of the great names with whose work it had been associated. He urged the first year's men to be constant in their attendance at its meetings, not at first with the idea of speaking, but with the intention of making their voices heard in their later student days. They should come to think and to learn how to speak, while, he was obliged to admit, they might at the same time learn how not to speak. In conclusion he called upon Mr. Knaggs to read his paper on Peritonitis.

Mr. Knaggs is a very able reader, a fact which added greatly to the enjoyment with which the paper was heard. The eloquence of his peroration made an evident impression on his audience.

Mr. P. N. Randall moved a vote of thanks to Mr. Knaggs. It was the rule to dispense with discussion at the first meeting of the session, but he could not help expressing his sense of the value of the paper, due to its practical nature.

Mr. Black seconded. The paper was a most interesting one, but though they were precluded from discussion it must not be assumed that they were in accord with all the opinions expressed. For instance, one might wish to say something about the use of free purging advocated by Mr. Knaggs.

The vote of thanks was carried by acclamation.

Mr. Knaggs having suitably replied,

Mr. Poolman moved a vote of thanks to the chairman. Mr. Bryant's presence that evening showed that though no longer a teacher, his interest in Guy's men was unabated. The speaker had again to touch on the event which introduced an element of sadness throughout the meeting. Had Mr. Hawkins lived, it would have been his place to move the vote of thanks.

Mr. Campbell seconded. He, too, was speaking in the place of another. Mr. Routh being unavoidably absent.

Mr. Bryant having acknowledged the vote of thanks, the proceedings terminated.

# Queen Extracts.

## RESEARCHES ON THE PHYSIOLOGY OF THE BLOOD.

By Dr. L. C. WOOLDRIDGE.

*(Continued.)*

*Serum Fibrinogen.*

Besides the A and B fibrinogens, which are nominally present in normal plasma, a third fibrinogen is sometimes present in small quantities in *serum*.

It is constantly present in the serum of dog's and sheep's blood, and can be precipitated from this by means of dilute sulphuric acid. It possesses similar properties to those of the tissue fibrinogens; added to peptone plasma it induces clotting, and, injected into an animal's veins, it prevents clotting in any blood that is drawn off, and occasionally gives rise to some small intravascular thrombi. Its interest lies chiefly in the fact that its presence probably explains some results of Hammarstens. This observer found on several occasions that the quantity of fibrin formed in the process of coagulation was much increased by addition of paraglobulin. Now, when paraglobulin is precipitated from serum, it carries down with it a certain amount of this new substance, if present. Hence it is probable that the real cause of the increase in the amount of fibrin formed was the accidental presence of this new fibrinogen as an impurity in the paraglobulin.

*Heating Experiments.*

It has been stated that, on heating the blood in the jugular vein to 56° C, a precipitate is formed, and the blood thereafter loses its power of coagulation. This is interpreted as showing that the fibrinogen of Hammarsten (which coagulates at 56° C) is actually present as such in the blood.

Dr. Wooldridge has shown that in its bare form this statement is misleading and the interpretation erroneous. He has found that plasma, containing both A and B fibrinogens, remains, on heating to 56° C, perfectly clear for a short time—five to fifteen minutes. It then becomes gradually turbid, and finally a dense flocculent precipitate forms; but it is a very long time before this precipitate reaches its maximum. This precipitate contains all the coagulable matter of the plasma. If A fibrinogen be absent, no coagulum is found till 80° to 90° C is reached.

In any case the plasma, if mixed with an equal quantity of 10% salt solution, remains free from any precipitate till 80° to 90° C is reached.

It would thus appear that in the process of heating the same special body is liberated from the A fibrinogen, as is the case when the latter is acted on by $CO_2$, *i.e.* a body capable of converting B fibrinogen into fibrinogen precipitable at 56° C, and coagulable with fibrin ferment (Hammarsten's fibrinogen). The presence of 5% Na Cl prevents its development by means of $CO_2$, and also by means of heat.

*Transudation Fluids.*

Many of the earlier experiments on coagulation were made on the fluids of serous cavities (pericardial and hydrocele fluid, &c.); Dr. Wooldridge's results confirm those of these investigators. He finds that the only coagulable proteid present is C fibrinogen, identical with Hammarsten's fibrinogen, which clots only on addition of fibrin ferment. Hence the vascular wall only allows C fibrinogen to pass, or more probably changes A and B fibrinogen into C fibrinogen in their passage through.

*Effects of Digestion on the Fibrinogens.*

In a recent paper (Archiv. für Anat. und Phys.), Dr. Wooldridge has considered some further points in the relation of the fibrinogens to coagulation.

The behaviour of these fibrinogens, when digested with pepsin and a mineral acid, is very interesting.

The fibrinogens, as stated above, are precipitated by a dilute mineral acid, and are dissolved in an excess of the acid. To such a solution pepsin is added, and the mixture is allowed to stand for some hours at 37° C. In this way a solution of peptone is formed, and at the same time a voluminous precipitate is produced, whieh is insoluble even after long digestion. While this precipitate is fresh, it is soluble in weak alkalies, but not in dilute acids. It is dissolved by strong nitric acid with production of a yellow colour.

When calcined it leaves an ash which is very acid. If fused with soda and saltpetre, a large amount of phosphoric acid is formed. This arises almost exclusively from the lecithin contained in the precipitate. If this lecithin is extracted by means of alcohol before calcining the precipitate, only a mere trace of phosphorus is found in the ash.

Moreover, this ash always contains iron, whereas, before heating the precipitate, no iron can be extracted from it by means of acid alcohol. This substance reminds one of the nuclein extracted by Miescher and Bunge from hen's eggs. The latter observer calls the stuff *hæmatogen*, and is of opinion that such a substance, present in eggs or other proteid food, is the sole precursor of hæmoglobin in the blood, and that iron salts merely act by preventing the dissociation of this body in the alimentary canal. At any rate, it seems most probable that it is the precursor of hæmoglobin in the chick. Fibrin, the product of the coagulation of fibrinogen, also contains lecithin. If, however, fibrin be digested artificially, no precipitate is formed, showing that in the process of conversion from fibrinogen to fibrin, the molecular relationship of the lecithin to the proteid molecule must have undergone some radical change.

On digesting ordinary fibrin, got by whipping blood, we get a precipitate of the leucocytes or unchanged blutplättchen, which are included in the clot.

*On the significance of Precipitation in the Process of Coagulation.*

When clotting takes place in a plasma in consequence of the interaction of two fibrinogens, a precipitation of one of the two seems to be essential before the clotting can take place. Thus, if peptone plasma be warmed to 37° C, and a stream of $CO_2$ passed through it, no coagulation takes place.

If, however, the plasma be first cooled so as to cause a precipitation of some of the A fibrinogen, and a current of $CO_2$ be then passed, the whole plasma clots. The influence of a single precipitation on the fibrinogens is shown by the following experiment:—

The fibrinogen in some peptone plasma is precipitated by means of strong salt solution, separated by filtration, and re-dissolved in dilute salt solution. This solution added to another portion of peptone plasma, causes speedy clotting. Thus, by being once precipitated, the fibrinogen is changed, so that it acts on the original peptone plasma like a foreign body, and induces clotting just like any tissue-fibrinogen.

"*Ferment Intoxication.*"

Many observers have stated that injection of fibrin ferment in small quantities into an animal's veins causes great disturbance of the animal's health, with high temperature, and sometimes purging and convulsions. In large quantities injection of fibrin ferment is said to cause intravascular clotting. Dr. Wooldridge shows that both these statements are incorrect, and that the results in both instances are due to the presence of fibrinogens as an impurity.

The injection of *pure* fibrin ferment into an animal's veins causes no symptoms whatever.

*On the Influence of Tissue Fibrinogens on Circulating Blood.*

If a solution of tissue-fibrinogen be injected into the circulation of a dog that is well fed and in full digestion, extensive intravasculating clotting is produced. If, however, the dog is underfed or fasting, we find that the clotting is confined to the portal vein. This shows that the blood from the alimentary canal must acquire peculiar properties, which it loses again in its course through the liver.

If the dog is bled after the injection, it is found that the blood is no longer spontaneously coagulable, and cannot be made to clot by filtration through a clay cell, or by dilution and passage of a current of $CO_2$, though it clots readily on addition of lecithin or tissue fibrinogen. Now this accords precisely with the characters of a plasma, from which the A fibrinogen is removed by cold or otherwise.

Thus we see that the action of the tissue fibrinogen is to combine with the A fibrinogen in the blood, forming a clot of fibrin, and thus taking from the blood the one substance on which depends its power of spontaneous coagulability.

The wide-spread clotting in the blood of well-fed dogs depends on the greater amount of A fibrinogen, which is present in their blood, as has been shown in an earlier part of these extracts.

In most cases the dog recovers from the portal thrombosis, part of the clot being absorbed, the other part leading to pathological changes in the liver,—hæmorrhagic infarction, followed by fatty degeneration and formation of new connective tissue.

The analogy between peptone and tissue fibrinogen is very striking. Both retard coagulation, both affect the portal circulation, the former paralysing the vessels of the gut, the latter causing the blood in them to clot.

*Genesis of Red Corpuscles.*

No one can have read the various theories of blood formation without being convinced that none of them have hit the mark, so to speak. No two observers agree on the subject. Hence the suggestion of Dr. Wooldridge is very welcome.

He thinks that red blood corpuscles are produced by a *process of precipitation from the blood plasma.* He thinks the blutplättchen are probably the precursors of the corpuscles. Facts in favour of this view are—

1. Hayem and Bizzozero have described all stages between the blutplättchen and the red corpuscles. These observers, however, regard the former body as a definite form element of blood. Wooldridge has shown that they are formed by precipitation from the plasma.
2. The blutplättchen (A fibrinogen) contain a large amount of the substance called by Bunge hæmatogen, and regarded by him as the precursor of hæmoglobin.
3. The stroma of red corpuscles acts as a fibrinogen.
4. The well-known intracellular (at this stage synonymous with intraplasmatic) formation of red corpuscles in the blood islands in the embryo (rat, rabbit, &c.)
5. The absence of any other satisfactory source.

This view can at present be only regarded as a suggestion; but it has a good deal of probability on its side, and deserves further consideration and investigation.

*Blood Plasma as Protoplasma.*

It is evident, all through these papers, that the author regards blood plasma not as a mere lifeless nutrient medium, like so much beef tea, but as active living protoplasm, like the contractile substance of muscle. It is in vital continuity with the vessel wall, and when removed from this, dies, even as does muscle when cut off from its nutrient centre in the cord. Thus the chemistry of coagulation is the chemistry of dying.

Summary.

1. Blood plasma is living protoplasm.
2. Blutplättchen do not exist preformed in the plasma, but are precipitated from it under various conditions, as *cold*, &c.
3. Coagulation depends on the interaction of lecithin proteids.

4. Coagulation in shed blood depends on the interaction of two lecithin proteids, A and B fibrinogen. Probably in this process there is a loss by A and a corresponding gain to B fibrinogen of *lecithin*. In the change to fibrin, the molecular relations of the lecithin to the proteid molecule undergo important changes. These changes are probably the essential part in the process of coagulation.

5. In this process fibrin-ferment is formed. This substance plays *no* part in ordinary coagulation.

6. The fibrinogen of Schmidt and Hammarsten does not exist as such in the blood, and is probably the last stage in the conversion of the A and B fibrinogens into fibrin.

7. Bodies similar to A and B fibrinogen (*tissue fibrinogens*) may be obtained from various tissues. Injected into blood they cause intravascular clotting, and, added to peptone plasma, they cause clotting. Injection of fibrin ferment, or of hæmoglobin into the circulation, has *no effect* on the animal. The tissue fibrinogens act by joining with A fibrinogen to form fibrin.

8. The blutplättchen consist of A fibrinogen. They are probably the precursors of red corpuscles, so that these are produced by a process resembling precipitation from the living plasma.

9. There is no evidence that, under ordinary conditions, the red and white corpuscles of the blood play any part in coagulation.

## DIGITI MINIMI DECESSUS.

"*Man is losing his little toe. . . . . and can do without it.*"—Mr. Clement Lucas, in his opening Lecture.

If thou must go, thou feeble, foolish digit,
Fain would I speed thy slow, degenerate way!
I daily feel a disagreeable fidget
Whenever I've occasion to display
Thy doubtful outline, and thy form chaotic
(Born of a taste in boots, perhaps erotic).
Thou art a shock to my æsthetic sense,
And offerest no kind of recompense
In way of use; of every function shorn,
Except to act as basis for a corn.
When thou art gone I'll still maintain my grace,
Still walk erect wherever I may be;
Still I'll belong to the athletic race,
Waltz with the fair, and kick mine enemy!
So *pace* Schopenhauers, and *pace* Mallocks
When I've acquired a hypertrophied hallux,
To monodactyle type thus simplified,
Life shall be simpler too, and so—beatified.

When future science forgets thee in thy prime,
Methinks a great mind from a northern clime
May then discuss thy remnants, and declare
He finds a true *prophetic organ* there!

F. G. H.

# Hospital News.

## INTERESTING CASES.

Job.
2. Pyæmia.
15. Growth of upper jaw.
20. Epithelioma jaw.

Lazarus.
20. Sarcoma of neck.
8. Epithelioma of lip.

Naaman.
9. Pulpy knee.
16. Senile gangrene.

Luke.
2. Disease of knee.
6. Disease of knee.
16. Renal Calculus.

Charity.
2. Spinal.
14. Ovarian.

Martha.
2. Trephining subdural abscess.
12. Ovarian.
22. Abscess of antrum.

Lydia.
6. Spontaneous fractures.
9. Uterine tumour.
14. Spina bifida.
29. Accident, Meningitis (?).
24. Fractured jaw, Hammond's splint.

Stephen.
2. Peripheral Neuritis.
3. ? Spinal meningeal hæmorrhage. Myelitis.
4. Athetosis,
10. ? Syphilitic myelitis (disseminated).
11. Lateral sclerosis.
12, 22, 29. Interesting hearts.
21. Hæmoptysis, pneumonia (secondary) ? phthisis.
29. Disseminated sclerosis.
34. Chronic Bright, Hæmaturia.
37. Diabetes, jaundice.
38. Jacksonian epilepsy.
40. ? Specific myelitis of upper dorsal region, ? Peripheral neuritis.

Philip.
4. Transverse myelitis.
6. Ruptured aortic valve.
7. Jaundice ? growth.
12. Jaundice ? growth.
13. ? Elephantiasis of scrotum and right leg.
19. Diarrhœa with hæmorrhage ? growth.
23. Abdominal growth. Internal hæmorrhage.
39. Recurrent typhlitis. Removal of appendix cæci.

Mary.
25. Ostio-arthritis.
32. Gonorrhœal arthritis.
34. Primary ataxic paraplegia.
7, 9, 12, 1, 3, 38. Interesting hearts.
41. ? Hydatid of liver, jaundice, anæmia, pleurisy.
44. Chronic Bright, hæmaturia.
50. Alcoholic peripheral neuritis.

John.
2. Mediastinal growth, ? Aneurism.

Miriam.
19. Myxœdema.
23. Malignant disease of liver.
28. Hemiplegia with pyrexia.
30. Myxœdema.

# Sport.

## FOOTBALL CLUB.

The Annual Autumn General Meeting was held on Monday, October 8th, in the Surgical Class Room, J. N. C. Davies Colley, Esq. (President) in the chair.

The Chairman first of all addressed the meeting, and urged the necessity of all Guy's men doing their utmost to support the club. He strongly advised all those who had the opportunity, to partake in the game whenever the occasion offered. He himself could speak from experience of the benefits derived from so doing; he knew of no better antidote to the ill effects caused by too hard work in the various departments of the Hospital. He was very pleased to see that the Rugby XV. had started the season so well, by gaining such a decisive victory over Dulwich College. He hoped that this season would once more see Guy's the winner of the Inter-Hospital Challenge Cup.

The Secretary then read the minutes of the last meeting, which were passed by the meeting and duly signed by the President.

Mr. F. H. Brown then resigned the Captaincy of the Association XI., being unable to play this season on account of an injury to his knee. He then proposed that Mr. H. A. Smith should take his place; Mr. W. E. Sturges Jones seconded. No other member being proposed Mr. H. A. Smith was elected captain.

Mr. Allport then made a few remarks on the new men who had come up this session. He thought some of them would prove valuable additions to both the First and Second XV.'s, and it even might be possible to play a third team.

Mr. F. H. Brown then deplored the lack of enthusiasm shown by the Association members, and especially called upon the first year men to do all in their power to keep up the reputation of the club. Unless more energy was shown, Guy's would have a very poor chance of winning the cup again this season.

The meeting closed with a hearty vote of thanks to the chairman.

## TRIAL MATCH (RUGBY).

This match was played on Thursday October 4th, at Raynes Park. Unfortunately, just before the game started, it commenced to rain, thus rendering the Ball very slippery, in consequence of which the play was rather erratic, the passing especially being bad. Sides were arranged by W. Bligh and J. H. Bryant, the latter winning by one goal and three tries to one try.

Of the forwards J. J. Biggs was undoubtedly the pick showing himself superior in all points of the game. He will be sure of his place in the First XV., and will prove a most useful addition, Pantin, Sheringham and Sharpe also played consistently throughout. Pantin especially showing up well in the loose.

Of the outsides J. H. Bettington proved himself a very smart three-quarter back, dodging, picking up and picking in good style. Barr also played a good game, but must learn to kick and take passes with more accuracy. Fraser played well at half as also did James and Humphreys, but they all have a tendency to play too near the screen. From the number of new men playing, we ought to have a very strong Second XV., and we shall expect them to give a good account of themselves this season. The tries were obtained by Biggs, Culmer, Bettington, Bryant and Bligh. Sides:—

*Bligh's.*—Tuck, back; H. V. Barr, E. Reed, P. Wilmot, three-quarters; L. E. James, H. F. Humphreys, halves; W. Bligh, W. G. Rogers, A. T. Rake, F. Hazell, J. H. Muncaster, Despreg, Swayne, Carpmael, W. C. C. Parke.

*Bryant's.*—J. B. G. Coleman, back; J. H. Bettington, H. Spon, W. Culmer, three-quarters; H. Fraser, C. E. Salter, halves; J. H. Bryant, J. J. Biggs, E. Huntley, T. G. Sheringham, A. J. Sharpe, Pantin, A. E. Durham, F. H. L. Cloud.

## GUY'S v. DULWICH COLLEGE.

This, the first match of the season, was played on Saturday, October 6th, on the College Ground, Guy's, proving victorious by 4 goals and 1 try to nil.

Directly the game was started the superiority of the Guy's forwards was evident, both in the tight and the loose game. The game was chiefly confined to the College 25. Just before half time Bettington dropped a neat goal for the Hospital. Nothing further was scored until half time. On changing over Guy's had matters much their own way. Biggs soon after obtained a try behind the posts after a long run. Bettington's shot at goal proved a success. The ball being re-started by Heming some loose play ensued in the Guy's 25. The ball was, however, soon worked up towards the College Quarters. Barr obtained possession and, after a good run along the touch line, secured another try; the shot at goal this time proved a failure. Bettington soon after dropped a splendid goal from nearly half way. The next point scored was by Bryant, who obtained a try behind the posts, just before no side was called. Bettington transferred this into a goal. For Guy's, besides those already mentioned, Allport and Rogers were most conspicuous.

*Guy's.*—Tuck, back; J. H. Bettington, H. V. Barr, H. Spon, three-quarters; J. H. Bryant, L. E. James, halves; A. Allport, J. Fawcett, J. J. Biggs, W. G. Rogers, H. Wilks, W. C. Swayne, W. Culmer, G. M. Pratt and Pantin.

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Guy's Hospital Gazette,
*OCTOBER 27, 1888.*

## NOTES OF CLINICAL LECTURES.

By Dr. Pavy.

### THORACIC ANEURISM.

Man, age 60, admitted into Clinical, Oct. 8th. Had good health, and drank freely till two years ago, when he had to give up work owing to dyspnœa and cough on exertion. Dysphagia came on six months ago; been getting worse and has lost flesh. Work compelled him to lift heavy weights. History of syphilis.

*On admission.*—Impulse in 6th space, thought to be cardiac apex; wavy impulse in epigastrium, well marked, with expansile tumour. In chest, good entry of air all over, except lower part of left side; resonant all over; hyper-resonant in axilla; few râles. No pain or hyperæsthesia in chest. Some pain at epigastrium.

Died suddenly ten days after admission.

*At the Post Mortem.*—Large aneurism, nearly as big as a man's head, at lower part of thoracic aorta, which had grown forwards, displacing heart and diaphragm, covered by lung. Impulse in 6th space apparently due to the sac. Ruptured into left pleura, which contained 70 ounces of fluid blood, and 30 ounces of clot.

Dr. Pavy remarked that one would have expected more physical signs in chest—as dulness, pain, and hyperæsthesia. These were conspicuous by their absence. The forward growth was unusual. As a rule, the vertebræ are eroded. A pulsatile swelling in the epigastrium is not necessarily aneurism. May be tumour with vessels behind. Aneurism distinguished by its expansion. The wavy character of impulse also noticeable.

*Causation.*—Deterioration of vessels with age, together with undue pressure in side vessels, resulting from over-exertion, undertaken when the tissues are not in a condition to bear it. Alcohol and syphilis predisposing causes; both present in this case.

*Results.*—Dysphagia from pressure on œsophagus, loss of flesh from inability to eat.

*Treatment.*—Chief thing is to induce coagulation in the sac, if possible. Some advocate starvation, Pot. Iod., or electrolysis. Dr. Pavy considered all useless. Aneurisms occasionally get well, but not such as this one.

### TYPHOID FEVER.

I.

The first case was that of a man, æt. 24, admitted Oct. 7th, with the following history: A fortnight before admission was taken bad with headache and pains all over. Sept. 30th had diarrhœa and deafness, and pain in left groin. Oct. 3rd, delirious.

*On admission.*—Temperature 104°; somewhat collapsed; abdomen tumid, with one or two spots.

He never recovered from collapse, and died in a few hours.

*At the Post-mortem.*—Many large longitudinal sloughy ulcers at lower part of ilium; Peyer's patches congested; one small ulcer in colon; small hæmorrhagic ulcer in cæcum. *Spleen* 15 ounces; soft, congested; extravasations of blood into lung tissue.

II.

The second case was that of a boy, aged 11, admitted Oct. 5th, with the following history: Sept. 29th had frontal headache and pains all over; feverish. Oct. 3rd, worse; had to go to bed; diarrhœa; slightly delirious at night; vomited next two days; motions yellow, watery, offensive.

*On admission.*—Temperature 104·4°. Pulse 100, soft. Respiration 20. Complains of frontal headache.

Patient pale; skin dry and hot; no spots. The rash is more constant in Typhus, occurring in 95 per cent. of cases.

In Typhoid, it consists of small round spots, slightly raised, of a rose color, fading on pressure. It comes out in successive crops, each lasting about three days, on abdomen and chest. The rash of Typhus is more diffused, and subcuticular, appearing between the 5th and 8th days, and lasting throughout the disease—not a succession of spots, as in Typhoid. Tumid state of abdomen to be noted.

*Diarrhœa* is not a constant symptom; there is often no hæmorrhage at all; severe hæmorrhage a bad sign.

*Albuminuria* sometimes occurs; is of no significance, some transient *deafness* sometimes present.

*Treatment.*—It is not possible to cut short the disease; it must run its natural course; all that can be done in the way of treatment is to steer the patient safely through.

Excessive diarrhœa, and hæmorrhage should be stopped, to avoid exhaustion.

Chest trouble, as bronchitis or pneumonia, should also be treated.

A Typhoid patient should not be raised from the recumbent position, owing to liability to syncope.

*Antipyretics.*—*Salicin* useless, also in Typhus and Pneumonia. *Antifebrin* the best remedy. Should be given in small doses, frequently (otherwise is likely to cause collapse), when temperature rise above 103°.

## TWO CASES OF INTESTINAL OBSTRUCTION.

The following cases well illustrate the difficulties which surround a case of intestinal obstruction; both patients were admitted with acute symptoms of some days duration; both were collapsed; both had had purgatives administered, both ended fatally, and at the post mortem in each case the obstruction was found to be due to the same cause.

I.

Edith G., æt. 3 years, admitted into Miriam on Wednesday, October 3rd, at 3 p.m. with this history:—On the Sunday previous she complained of headache; about 4.30 p m. went to stool and passed an ordinary motion, almost directly afterwards she complained of severe pain in the upper part of the abdomen; at 5.30 p.m. began to vomit, the vomiting came on about 10 minutes after taking food, but no vomiting in the intervals, the vomit consisted of semi-digested food but was *never* stercoraceous, she was given purgatives but the bowels had not acted since the Sunday afternoon. At 2 a.m. on October 3rd she was able to retain a little milk and lime-water, and at 11 a.m. had an enema which brought away some scybala.

On admission patient is collapsed, with ashen grey face, sunken eyes, well marked areolæ, pulse feeble and too quick to be counted, respirations weak, irregular and sighing, temperature 90°, pupils dilated, eyes bright, patient very restless, tossing about and drawing up the legs. Abdomen quite supple, no distension, nor retraction, nothing abnormal can be felt, rectal examination revealed nothing. Soon after being put to bed, patient vomited, bringing up some curdled milk.

Dr. Pavy saw the patient at 3.30 p.m. and prescribed ext. opii. liq. ♏iii., mist. mucilag. ʒi. 4tis. horis., and suggested that a Surgeon should be called in.

Mr. Lane visited the child at 4.15 p.m. and decided not to operate, as the collapse was so great, and a physical examination had discovered nothing definite.

October 4th. The patient at 11 a.m. has not rallied from her collapsed condition, it is found very difficult to keep her warm, she has been very restless, at times appears to be better, and then immediately afterwards becomes pulseless and cold. Abdomen rather more prominent though not by any means tense; at 10 a.m.

returned a nutrient enema; at 12 noon retained half a nutrient enema. Brandy ʒii. in 24 hours. 1 p.m. she is pulseless and cold; respirations very slow; brandy ɱxv. hypodermically. 1.30 p.m. abdomen more swollen; some dulness above pubes; a catheter was passed and ʒii. urine drawn off; some improvement in the pulse, but patient gradually sank and died at 6.40 p.m.

*Post Mortem Report.* About 4 inches above the caecum was a band 1 inch long, not thicker than a piece of whipcord, connecting two pieces of small intestine, this constricted a loop of distended small intestine (4 inches long), below, the gut was empty and contracted; above, congested, but not dull in colour. No signs of any old peritonitis.

II.

Annie L., æt. 48 years, admitted into Miriam on October 19th in the evening, with the following history:—Patient was quite well up to October, 12th, when she had some pain in the abdomen, on the following day in the afternoon the bowels were opened freely, a few hours afterwards vomiting came on and continued up to admission. The Doctor who first saw her thought she was suffering from lead colic and ordered calomel and opium, and subsequently castor oil enemata, but nothing succeeded in causing any action of the bowels. She was not so sick on the 17th, but on the 18th the Doctor was so struck with the change in her appearance that he called in Dr. Lauriston Shaw who advised her removal to the Hospital.

On admission patient is collapsed, face drawn, and surface of body cold, abdomen slightly tumid, but no rigidity nor local pain; there is some pain however over the lower end of the sternum through to the back. No peristalsis. No tumour felt. Abdomen resonant. Dr. Pitt after examining patient called Mr. Lane who considered an operation was the only chance for the patient.

Enemata of beef-tea and brandy were administered. Ether was then given and an opening made in the abdomen in the median line; distended intestine bulged out into the wound, and Mr. Lane passed his hand into the abdomen, he felt a constricting band low down in the pelvis towards the left side, the opening was enlarged but the band could not be brought into view so it was divided in sitû with the fingers; the bowel was then drawn out and it was found that at about the middle of the small intestine the gut seemed constricted, below this the bowel was much contracted. The wound was then closed. The patient neither rallied nor regained consciousness. An injection of $\frac{1}{60}$th gr. atropine was given, shortly after this the patient vomited up some brown fluid, and died at 3.45 a.m.

*Post Mortem Report.* A loop of the middle part of the small intestine about 31 inches long was found to be much congested and distended. At its lower end there was a well marked constriction and the line of inflammation was sharply defined, but at its upper end the congestion shaded off gradually into the healthy bowel; above this loop the bowel was distended; below, it was collapsed. Two adjacent appendices epiploicæ of the 1st part of the rectum were rather congested and from the contour of their contiguous borders, and the ragged appearance of their extremities it was apparent that they had formed a ring through which the loop of intestine had lapsed, and become strangulated.

In the above cases the collapse and absolute constipation was particularly well-marked, as well as absence of all abdominal movement, but though there was vomiting which was continuous, it is noteworthy that it never became stercoraceous, except in the second case after the bowel was released, and it was probable that the fluid vomited came from the contents of the strangulated loop; neither was there any tympanitic distension of the abdomen, the pain also was situated higher up than the umbilicus, to which it is usually referred.

A. R. F. E.

## A POSSIBLE FUNCTION OF LEUCOCYTES IN RESPIRATION.

Professor McKendrick, in his address to the British Medical Association on the gases of the blood, delivered on August 10th last, gave considerable prominence, though by no means unqualified assent, to the extraordinary theory respecting the influence of the heart beat on respiration, recently put forward by Fleischl von Marxow. There is a difficulty in the accepted explanation of tissue oxidation to which Von Marxow calls attention, and which he frames his theory to explain. He starts, to quote Dr. McKendrick, "with the antagonistic statements that of all animal substances hæmoglobin is the one which possesses the greatest affinity for oxygen, *or*, that substances exist in the animal body which, at least, occasionally, have a greater chemical affinity for oxygen than hæmoglobin possesses. If the tissues have a greater affinity for oxygen than hæmoglobin has, how is it that in the blood of animals that have died of asphyxia there is still a considerable quantity—in some casss as much as 5 volumes per 100 volumes—of oxygen? It is well known that the blood of such animals invariably shews the spectrum of oxyhæmoglobin. The tissues, then, do not use up all the oxygen of the oxyhæmoglobin, and they cannot, therefore, have a stronger affinity for the oxygen than hæmoglobin has. On the other hand, as the tissues undoubtedly seize hold of the oxygen and rob the hæmoglobin of it, it would appear as if they really had a stronger affinity for the oxygen. There is thus a contradiction, according to Fleischl von Marxow, and it shows that our theories as to the ultimate chemical changes of respiration are not valid."

Properly understood, however, the ordinary theory of respiration does not involve the assumption that the tissues have, strictly speaking, greater chemical affinity for oxygen than has hæmoglobin. It rather considers their oxidation as an instance of a phenomenon to which chemistry has given much attention of late—as being determined, in fact, by the effects of mass. The proportionately very large mass of the tissues is able to maintain the decomposition of the oxyhæmoglobin by continuously absorbing and removing the gaseous product of that decomposition. It is easy, of course, to quote many well-known chemical experiments illustrating this point. If we pass hydrogen over heated oxide of iron the former is oxidised to water at the expense of the iron, and as the stream of hydrogen constantly removes the water vapour as it is formed, the process goes on till all the iron is reduced. But if we now take this same reduced iron and pass steam over it in quantity, it is the latter which becomes reduced, the iron being oxidised at the expense of the hydrogen, while this latter is constantly removed from the scene of action, and the process is continuous until all the iron is oxidised. Thus we see it is not alone the absolute affinity for oxygen of hydrogen and iron, respectively, which determines the phenomenon of interchange, for the process is reversible; we have to consider in addition the effects of relative mass, and of the removal of decomposition products. I think the phenomenon of tissue oxidation may be considered as almost precisely analogous to this. It is, of course, absurd to conceive of chemic force acting across the interspace which separates the tissue elements from the red corpuscles; but if the tissues are able, by absorbing the nascent oxygen as it leaves the capillaries, to maintain the extra-vascular pressure always below the point at which oxyhæmoglobin naturally decomposes, at the temperature of the body, then the process would become continuous. The ordinary theory postulates nothing further.

It seems desirable that this more scientific view of the accepted theory should be insisted upon, for Von Marxow's opening statements, quoted above from McKendrick, appear to ignore the true conditions of the problem; and, drawn up as they are in the form of two mutually exclusive propositions, seem suited to preface an exercise in dialectic rather than an appeal to scientific evidence.

Nevertheless, we may have to admit that the phenomena of asphyxia, to which the Vienna physicist calls attention, may point to another factor necessary in the process, which is eliminated, when, in asphyxia, the oxygen of the blood is reduced to some 5 volumes per cent; a factor which is probably, under normal conditions, capable of directly *inducing* the decomposition of oxyhæmoglobin. And, indeed, *à priori*, it would appear extremely probable that the highly differentiated tissues may fail at times, during the variations in their activity, to maintain the oxygen pressure at the low figure necessary for the free decomposition of oxyhæmoglobin. And it may happen, locally or generally, that the extra-vascular areas become filled with oxygen, in the ordinary non-nascent inactive state, at somewhat higher pressures than the above. Were this to occur anywhere in the body, in all probability the tissues concerned, even on resumption of their activity, could not easily start afresh the absorption of this inert oxygen, and so could not begin again the decomposition of the oxyhæmoglobin, which, if it depends on pressure only, would have ceased. Hence one would suspect the existence of some agent capable of directly inducing the breakdown of the oxygenated molecule and consequent stream of nascent oxygen. It is this, in effect, which Von Marxow finds in the mechanical action of the heart beat. The stroke, he argues, is of a nature more rapid and violent than would be required for the purposes of mere circulation, whereas the blow may be efficient in causing the decomposition of the oxyhæmoglobin, and also of determining the condition of the oxygen, when liberated into the plasma, in such a way as to make its evolution into the tissues a matter of greater ease; the possibility of this latter effect being suggested by experiments made by Von Marxow himself. I have no space here to set down his arguments, which are, however,

clearly and succinctly stated by Dr. McKendrick in his address (*Nature*, August 16th and 23rd, 1888, and the contemporary medical press). Suffice it to say, that the latter practically dismisses the theory as untenable, chiefly on quantitative grounds. The heart-beat, Dr. McKendrick thinks, is, mechanically, quite insufficient to produce any such effects as those attributed to it. With this conclusion most people, whose methods of thought are not ultra-teleological, will probably agree.

It is the object of the present paper to suggest a possible factor in tissue oxidation of a different nature. Briefly, I would ascribe the primary impetus to decomposition in the oxyhæmoglobin molecule to the effects of the active and oxygen-needing life of leucocytes in the capillaries. The life phenomena of a white corpuscle in the blood stream, and especially in the capillaries, are essentially amœboid, and as such need a constant supply of oxygen for their maintenance. What I would here postulate is, that the leucocyte is able to obtain this oxygen from oxyhæmoglobin, and that in abstracting its own proportionately small share, it determines the chemical breakdown of the whole molecule, and a consequent stream of nascent gas into the tissues. The process in fact becomes recognised as one of that common class of phenomena where the splitting up of a complex chemical molecule is induced by the life functions of an organism. We are far more justified, by analogy and experience, in attributing such a power to the naked protoplasm of the leucocyte with its diffuse functions, rather than to the cell elements of the tissues, crowded as they often are with the inert products of metabolism.

If it be granted that the action of leucocytes is a factor of a kind capable of so acting, it is, I think, easy to show that it would be quantitatively sufficient. For the normal activity of white corpuscles in the capillaries of warm-blooded animals is probably very great indeed, much greater than we are enabled to observe in the abnormal conditions of experiment. The active functions assigned to them by modern physiology, certainly indicate this. And we are by no means to suppose that the individual leucocyte is hurried through the capillaries without having time to display the attributes of true amœboid life; probably, in the plasmatic layer, a very large amount of increase by division even may normally take place, as seems to be shown by the fact that veins generally contain a larger number of leucocytes than do the corresponding arteries. Altogether, if the white corpuscles can be looked upon as an efficient cause of oxyhæmoglobin decomposition, there is little doubt that they are a sufficient one.

If, then, my contention be admissible, tissue oxidation is the result of conditions not uncommon in chemical phenomena. We have an unstable molecule whose explosive decomposition is induced by a fermentive, and, in a sense, catylitic agent; while the process is rendered continuous by constant removal of the gaseous product of the decomposition.

With regard to the fundamental difficulty, dealt with by Von Marxow, respecting the oxyhæmoglobin left undecomposed in cases of death by asyhyxia, I would suggest that the tissues are unable to absorb this residue of oxygen, not because the heart has ceased to beat, but because the great increase of $CO_2$ in the blood has suspended the vitality of the leucocytes. In like manner may be explained the remarkable fact, that while, during the progress of asphyxia, dyspnœa may intervene when there is yet one-sixth of the normal oxygen present in the blood, animals may nevertheless bear the removal of a large proportion of their blood, and the substitution for it of normal saline solution or of foreign serum, in some cases (Von Ott) until the oxygen is reduced to $\frac{1}{5}$th of the normal, without distress of breathing. This, in my theory, is because, under the latter conditions, the white corpuscles maintain their proportionate number, and, as we should expect, are unaffected by the saline solution or foreign serum. They are able therefore to maintain an efficient, though greatly reduced, supply of oxygen by acting upon the remaining red corpuscles.

There is an extremely interesting fact upon which my theory appears to throw light, and from which it obtains indirect confirmation. I allude to the discovery, made by Dr. Wooldridge, that leucocytes from lymph become essentially changed in their nature when introduced into the blood stream. I quote the following from the excellent translation of Dr. Wooldridge's paper, appearing in this Gazette (vol. ii,, No. 36, page 136):—

"A dog was injected with a solution of peptone. Some blood that was drawn off did not clot spontaneously, but clotted quickly on the addition of lymph corpuscles. A large quantity of the same corpuscles were now injected into the vein of the dog without producing the slightest effect. Shortly afterwards some blood was again drawn off. This specimen also would not coagulate until some lymph corpuscles were added to it, when it coagulated immediately." Remembering that lymph is practically free from dissolved oxygen, and, of course, from hæmoglobin, it seems to the present writer that these results may be explained as follows:—In the lymph stream the life of a leucocyte is essentially what Pasteur termed anærobic—that is, existing without free oxygen. It is in this condition that the fermentive action of organisms most displays itself, they having to obtain their oxygen from the molecule of the fermentable matter. In the blood stream the leucocyte is still in a sense anærobic, obtaining its oxygen (in part at least) by decomposing a complex molecule; but this molecule is of such exceptional nature and yields its oxygen with such great ease, that the life of the leucocyte becomes essentially ærobic, or that of an organism with a supply of free oxygen. I may, perhaps, call its action fermentoid. We should at once expect, therefore, that the products of its metabolism would be different in the two cases. In the anærobic (lymph) life, it builds up bodies (lecithin or other) which are able to induce coagulation; in its ærobic (blood stream) existence, these substances are absent, or present in very small quantity.

The leucocyte in the blood stream is therefore a very interesting organism; it is intermediate between a true

ferment and an ærobic amœba; this is because it has such an exceptional molecule to deal with.

In cases of acute leucocythæmia, the dyspnœa which ensues, may be assisted by what becomes practically a parasitic consumption of oxygen by the enormous number of leucocytes. The amount of oxyhæmoglobin is of course greatly decreased, and the white corpuscles themselves may appropriate a sufficient fraction of it to aid in producing symptoms of dyspnœa.

Even if it be that Von Marxow has put on teleological spectacles only to find a mare's nest; and that under normal conditions no other factor than the elevated temperature of the body, and the reduction of the extra vascular pressure is necessary for tissue oxidation; it is yet almost certain that were the balance of these factors, from any cause, interfered with, the leucocytes would act in the manner I have indicated.

Finally, with respect to a difficulty that will probably occur to most, namely, that the substance yielding oxygen is not dissolved in the medium wherein the organism lives, thereby differing from ordinary cases of fermentation, I would remind the reader that our ignorance of the intermolecular relationship between hæmoglobin, stroma and plasma, is complete. The medium is itself living protoplasm; so that the conditions of the phenomenon are here again exceptional.

F. GOWLAND HOPKINS.

# Hospital News.

## INTERESTING CASES.

Accident.
7. Fractured spine.
8. Cerebral injury.

Cornelius.
14. Compound fracture of arm.

Job.
3. Lardaceous disease.
9. Radical cure of hernia.
22. Ununited fracture of tibia.

Charity.
21. Burn, Coma.

Naaman.
2. Meningitis.
12. Hammer toe.
16. Senile gangrene.

Luke.
2. Psoas bursa.

Lazarus.
10. Lardaceous disease.
18. Aneurism.
22. Recurrent melanotic sarcoma.

Martha.
2. Facial paralysis.
7. Ovarian tumour.

Philip.
4. Transverse myelitis.
8. Chorea, Cardiac.
19. Growth of splenic flexure.
29. Abdominal growth.
31. Osteoarthritis, Spinal caries, Tubercular testes.
32. Phthisis, Tubercalar ulcer of tongue.

Mary.
13. Tubercular peritonitis.
14. Typhoid, ? Relapse.
19. Ulcerative colitis (?)
29. Hysterical paraplegia.
34. Primary ataxic paraplegia.

John.
8. Menière's disease.

Miriam.
20 and 30. Myxœdema.
Cot. Tubercular meningitis.

Stephen,
1. Epistaxis.
4. Athetosis.
11. Lateral sclerosis.
16. Apoplexy ? Hæmorrhage ? Embolism.
17. Diphtheria, Tracheotomy.
37. Trephining.
39. To-and-fro Aortic and Mitral.
40. Specific Myelitis.

Mary.
2. Addison's disease.
Cot. Diphtheria, Tracheotomy.
41. Suppurating hydatid.
43. Broncho-pneumonia.

# Correspondence.

*To the Editor of* Guy's Hospital Gazette.

Dear Sir,—I am very much surprised to find that out of about 400 Students in Guy's Hospital there is no regular minstrel and dramatic society. I understand that an impromptu minstrel society is got up at Christmas for the amusement of the patients; then why not start a regular society and have practice once a fortnight or so, and then give entertainments at different times during the year to the patients in the various wards—of which there are a large number—and one in each ward once a year, I think would be a great boon to the patients, who have nothing to change the monotony of their life whilst in the hospital.

I should be very glad to join a dozen others in getting up something of the sort, for I am sure that the thing, once started, would work very well.

So if those who feel inclined to take part in a minstrel society would leave their names with the librarian as soon as possible, we might convene a meeting and talk the matter over.—I am, etc.,

C. JENKINS.

# Passim.

Mr. Groves has, we understand, just formed a special class in Chemistry for the Preliminary Scientific Students who are going up for examination in January next.

The following gentlemen were appointed House Physicians and House Surgeons at the last meeting of the Committee :—

*House Physicians.*—George Herbert Pennell, November; George Lloyd Roberts, January.

*House Surgeons.*—George Black, November; Ernest Frederick Gardner, January.

Mr. A. E. Poolman has been appointed Resident Medical Officer for Bright Ward.

We observe that Guy's stands fourth on the list of full entries among the Metropolitan Schools, our total entry being 103, which appears to be the highest since 1879.

We publish full particulars in another column of the alterations and additions that have been made to the Entrance Scholarships. We think this is another step in the right direction, and would recommend our readers to make the facts as widely known as possible amongst their friends.

The new lights in the Dissecting room are a great assistance to the Students in their work, enabling them to dissect through the foggiest weather.

The foundations of the "New College" are, we are glad to say, progressing very satisfactorily.

It is with much regret that we are obliged to omit the account of the last Physical Meeting until the next issue. The meeting was very successful, especially in having Mr. Durham as its chairman.

The next meeting of the Society will be held to-night, when Mr. S. W. MacIlwaine will read a paper on "Medicine in relation to Pathology."

## OPEN SCHOLARSHIPS IN ARTS AND SCIENCE.

*Four Open Scholarships, two in Arts, and two in Science will be offered for competition in September, 1889.*

### ENTRANCE SCHOLARSHIPS IN ARTS.

1. A Scholarship of 100 guineas, open to Candidates under 20 years of age.

2. A Scholarship of 50 guineas, open to Candidates under 25 years of age.

SUBJECTS :

Latin.—*Virgil*, Æneid, Books I. and V.

Greek.—*Xenophon*, Cyropædia, Book V.

The principal passages for translation into English will be selected from the above works. Short passages will be given from other works. Questions on Grammar and short passages in English for translation into Latin and Greek respectively will be set.

French.—

German.—

Passages in the above languages will be set for translation into English; also passages in English for translation into French and German respectively; and questions in Grammar and Literature.

Arithmetic.—

Euclid.—Books I., II., III., IV., VI.

Algebra.—To the Binomial Theorem and Permutations and Combinations.

Candidates may choose between Greek and German, but will not be allowed marks in more than one of these subjects.

### ENTRANCE SCHOLARSHIPS IN SCIENCE.

1. A Scholarship of 125 guineas, open to Candidates under 25 years of age.

2. A Scholarship of 50 guineas, open to Candidates under 25 years of age.

SUBJECTS :

Inorganic Chemistry, General Biology [Zoology, Botany], Experimental Physics, including General Properties of Solid, Liquid, and Gaseous Bodies, Acoustics, Heat, Magnetism, Electricity, and Optics.

There will be a practical examination in Chemistry in addition to the Paper. Specimens will be given with the Papers in Botany and Zoology.

The Examination will be held on Wednesday, the 25th of September, and the two following days.

The successful Candidate will be required to enter at the Hospital, as a Perpetual Pupil, in the October immediately succeeding the examination.

Names of intending Candidates should be forwarded on or before Monday, September 23rd, to the Dean, Guy's Hospital, London, S.E.

## NOTES ON RECENT SCIENCE.

It is our intention to publish from time to time in this column short paragraphs dealing with the result of current scientific work, such as would seem of special interest to our readers.

M. M. Jaffe and Hilbert (Zeit. Phys. Chem., t. 12, p. 295), in investigating the changes which acetanilide (anti-febrin) and its homologues the acetoluides, undergo in the body, have shown how important is the influence of molecular structure on the physiological action of compounds. There is only one acetanilide, it being a mono-substitution compound of benzene; but there are three acetoluides, for these are di-substitution compounds. Now although these three are all of the same percentage composition, and are in general all formed at once, in greater or less quantity whenever a process is adopted for making any one of them, it is nevertheless found that the *para*-compound is almost without effect on an animal; that the *meta*-compound is non-toxic, but produces considerable lowering of temperature, like acetanilide; while the third, or *ortho*-acetoluide is extremely poisonous.

Evidence such as this shows how cautious we should be in reasoning *à priori* on the action of drugs, and proves that in the use of the organic compounds now so much employed in medicine, uniformity of composition is all important. We should expect that the next higher homologue of a body like acetanilide would have a closely analogous action, and in the case of one isomer such expectations are justified. Yet the other isomers are totally different in their effects. It should be noted that anti-febrin is liable to contain small quantities of acetoluides and this may account for certain variations in the effect of the drug.

Much interest is attached to the physiological properties of saccharine, and they are occupying the attention of a good many investigators just now. A French scientist has recently published some important results in this direction (Bruylants Jour. Phar. et Chem., XVIII. 7, p. 292). In the first place after prolonged experiments on himself he can discover no deleterious effects from the use of saccharine. Making laboratory experiments he finds that it does not in any way interfere with gastric, though it somewhat slows pancreatic digestion. Assuming, what is probably the case, that the whole of the non-absorbed drug is eliminated in the urine, M. Bruylants has estimated the increase of total sulphur in the urine due to use of saccharine and thus calculates the amounts absorbed. Of a half-gramme dose, 20 per cent. was absorbed; of a subsequent one-gramme dose, 18 per cent.; of a later, one-and-a-half gramme, 16 per cent.; and of a two gramme dose, 12 per cent. It has been frequently suggested that saccharin should be used in beer as a harmless and palatable antiseptic, but, according to the above experimenter, it has really no antiseptic action, and cannot prevent the acetic fermentation of beer.

What is probably true hæmatoporphyrin has recently been prepared. As is well known, a solution giving the characteristic spectrum of this substance is obtained by acting on hæmatin with strong sulphuric acid. But the body isolated from this solution is either a mixture or an anhydride of true hæmatoporpyhrin. The latter may, however, be made by treating hæmin or hæmatin with a saturated solution of hydrobromic acid in glacial acetic acid. Its compound with hydrochloric acid crystallises in tufts of needles, the sodium salt in prisms. It has the same empirical formula as bilirubin, which it resembles in many of its properties (*vide* Chem. Soc. Jour., Sept., 1888, p. 971).

The great increase in the use of aluminium has been due mainly to the cheapened production of sodium, which is essential to the manufacture of the former metal. In the old process for making sodium, carbonate of soda, lime, and charcoal were heated to 1500°C, when the reduced metal distilled over. But the great heat necessary is very destructive to the furnaces, and the carbonic oxide which is always produced unites with the sodium vapour to form a black material which is very explosive. In the new process, pitch is mixed with finely divided iron and the mixture coked in crucibles. The resultant coke will reduce sodium carbonate at much lower temperatures than will the lime mixture, and there is no carbonic oxide given off. Students should be familiar with new processes such as this; they are apt to creep into chemistry examination papers before they are found in the text books.

## PHOTOGRAPHIC COMMITTEE OF THE PHYSICAL SOCIETY.

The Committee for the present session is composed of the following; H. H. du Boulay, J. A. Wheeler, W. E. Kelbe, A. R. F. Evershed, T. S. Jackson and F. Colclough.

Last year was not so successful as it might have been in the way of securing photographs, and it is hoped that in the future those who wish any interesting chemical case or pathological specimen photographed will give as early a notice as possible, either by communicating with one of the committee, or leaving a letter addressed to the Photographic Committee in the window of the Porter's Lodge, or by writing full particulars on the slates to be found in the Medical and Surgical Registrar's Rooms. The best cases for photography are those which show most contrast in the way of variations in form and light and shade. Colours do not photograph well,

## THE CHEMICAL ACTION OF CERTAIN MICRO-ORGANISMS.

In the last August number of the Chemical Society's Journal is a very important paper by Mr. R. Warrington, on the chemical action of micro-organisms. Mr. Warrington's skill as an experimentalist is so well known that his paper has received much attention. He worked with 27 distinct organisms, carefully cultivated and isolated, with the assistance of Dr. Klein and others. These he tested as to their efficiency in inducing the following: (1) the hydrolysis of urea; (2) curdling or other changes in milk; (3) the reduction of nitrates; and (4) the process of nitrification. We have not space to give a complete list of the organisms investigated; amongst them were the baccilus of swine fever, of typhoid, of anthrax, of septicæmia, B. fluorescens, and B. intestini; the spirillum of Asiatic cholera, Streptococcus scarletinæ, and others equally well known, together with some rarer and newer ones.

I.—The hydrolysis of urea and the conversion of that substance into ammonium carbonate. Some 9 organisms have been previously described as being able to induce this interesting and important change; but out of 24 investigated by Mr. Warrington only 2 could be shown with certainty to have this power. Of these the one, *Micrococcus Ureæ*, has been previously described by Dr. W. R. Smith as inducing the hydrolysis of urea. The latter isolated it, and also 20 others, from decomposing urine, but of all these M. ureæ alone was able to produce this change (Quart. Jour. Micros. Science, 1887, 371). The second found by Mr. Warrington to be efficient was B. Fluorescens (Klein, Med. Offic. Report, 1887-8).

II.—Action on Milk. Of the organisms examined 5 curdled milk with the previous production of lactic acid. Staphyloccus candidus (obtained by Klein from condensed milk), B. intestini (found in large intestine of rabbit in diarrhœa. Klein), the bacillus of infantile diarrhœa, M. ureæ, and, lastly, M. gelatinosus (Klein). Of these the first three seem to produce lactic acid only, and the curdling is due to the acidity; but the two latter, and especially M. gelatinosus, probably produce some substance in addition to the acid. They curdle the milk before there is enough acid produced to be efficient. But 3 other organisms were found capable of curdling milk without previously producing lactic acid; they were, in fact, able to produce a curd in the presence of free alkali, just as rennet does. These were the spirillum of Asiatic cholera, a spirillum of cheese, and a bacillus known as B. fluorescens liquescens. It is interesting to note that while the latter produced no peptones at all during the process of curdling, the two former produced them in quantity and especially the cholera organism.

Mr. Warrington found that S. scarletinæ had no power to curdle milk. Since Dr. Klein had previously described it as doing so, he communicated with the latter, who repeated his original experiments and confirmed them. This led to the discovery of the fact, which is of importance to bacteriologists, that S. scarletinæ has this power of curdling milk at first, but entirely loses it after repeated cultivations in gelatin.

Certain other forms do not produce an actual curd, but are able to gelatinize the milk.

The author has been able to prove the following important generalization, namely, that the whole of those organisms which do not gelatinize milk do not liquify gelatin, and, on the other hand, such as do liquify gelatin, always gelatinize milk.

*(To be continued.)*

## EXAMINATION LIST.

### FINAL CONJOINT.

The following is a list of gentlemen who, as far as we can ascertain, have passed the Surgery of the Final Conjoint Examination:—

| | |
|---|---|
| F. A. Collington. | C. W. Hewlett. |
| F. Dugon. | J. Robertson. |
| A. R. F. Evershed. | R. W. Rouw. |
| T. R. Farmer. | C. G. Thorpe. |
| F. J. Fehrsen. | R. T. Wallace. |
| A. D. Fripp. | R. E. Williams. |

T. N. Wright.

The following have passed in Medicine:—

| | |
|---|---|
| T. A. B. Cooke. | W. E. Kelbe. |
| C. J. Cressey. | C. Legg. |
| C. J. Fuller. | G. J. Padbury. |
| W. Gibson. | J. H. Prall. |
| C. W. Hewlett. | T. R. Rolston. |

W. G. Thistle.

The following have passed in Midwifery:—

| | |
|---|---|
| W. G. Beyts. | A. B. Hudson. |
| T. A. B. Cooke. | G. L. Kemp. |
| F. W. S. Davis. | W. P. Le Feuvre. |
| A. R. F. Evershed. | E. O. Newland. |
| F. Dugon. | G. J. Padbury. |
| F. F. F. Foster. | R. G. Pollock. |
| W. Gibson. | C. D. H. Rygate. |
| C. W. Hewlett. | F. G. Vicars. |

### FIRST CONJOINT.

ANATOMY AND PHYSIOLOGY.

| | |
|---|---|
| G. F. Birdwood. | * W. G. Mitchell. |
| E. E. James. | C. G. F. Morice. |

* Passed in Anatomy only.

MATERIA MEDICA AND PHARMACY.

| | |
|---|---|
| V. H. Barr. | W. D. Loveday. |
| W. Bligh. | D. A. W. Martin. |
| J. J. Browne. | A. H. Trevor. |
| A. V. Chapman. | H. J. L. Wales, |

H. B. Wilkinson.

## REST AND PAIN.

In pericarditis, if we could stop the heart's action for a week or two, we should cure the disease as easily as we do inflammation elsewhere—but, of course, this is impossible. We cannot remove the mainspring of a watch to clean it and yet hope to keep the machinery going. All we can do is to insure general quiet, no active exertion, and to the horizontal position. Each rub of the pericardium is simply keeping up the disease, and a means, such as reclining, by which we can cut down the number of those rubs by about 17,280 times during the twenty-four hours is not to be despised. Writing upon the diseases of children, Dr. Goodhart says of heart disease: "Absolute rest must be continued for a long time. There is no more important rule of practice, and none more neglected. If there has been acute pain and endocarditis, the heart is smothered in a thick jacket of lymph. The muscular walls are swollen and degenerated. The cavity is dilated. Are two or three months of rest too much to give such an organ? Is it too much to insist on, when the fulness of a just budding life depends upon it? A surgeon thinks a year not too long to rest a diseased hip joint. Should a child with such a heart as we have described be skipping about in six weeks?" These words very powerfully paint the necessity for rest.

Finally, the very beds themselves in a hospital ward are silent advocates or rather demonstrators of the powers of rest. A man with typhoid fever is fighting with dread disease for his life. The combat is a slow and often stubborn one—and to a large extent is a rest—for the physician can do little beyond sustaining the patient; he acts as "second" and holds the sponge, and everything depends upon the patient bringing to bear his whole strength in fighting against his enemy; and an axiom in the treatment of diseases of this kind is, let as little strength be *wasted* as possible, and, therefore, the sick man is put to bed and kept there.

I was much struck on reading Dr. Savage's paper in the last volume of the Guys Reports, by the use *he* makes of rest in dealing with mental disease. He divides these diseases roughly into three classes—

(a) *Diseases of the brain.*

(b) *Insanity depending on the mal-nutrition of the nervous system.*

(c) *Mind unbalanced through sensory or other disorder.*

Referring to class (c), for the other two are probably incurable, he says:—"Everything is to be done to give rest in the *earlier parts* of an attack of insanity; and, *later on*, everything should be done to stimulate the nervous functions."

Suppose a bad fracture of the tibia is to be treated. It needs the removal of injurious influences; simple nutritious food; a well-filling "croft," and nothing else. An acute attack of insanity must be similarly managed. The patient requires rest at first, and if he will not rest he must be made to do it. "To the insane patient an asylum is merely the 'splint,' and the occasional 'restraint'—that is, the padded room and the like is but the lightening of the bandages which secure the splint." Injurious influences must be removed, just as we drag out a tooth that is setting up mischief. The change, however, must be made for some distinct reason and not for its own sake. The false notions and suspicions that are shown must be quietly, firmly and logically shewn to be false—for, after all, these are merely the symptoms of disease of the mind, as redness and pain and the like are of the body.

But while thus insisting, and I hope I have done so to some purpose, on the value of rest, let us not be blind to the fact that there is such a thing as abuse of rest, or rest too long continued.

*(To be continued.)*

## MULTUM IN PARVO.

The following case may prove of interest, as shewing an extraordinary amount of suffering endured, and variety of lesions presented in a short lifetime.

A child was born in the Borough last June, I am told in its seventh or eighth month; presentation, "A Footling." After birth artificial respiration had to be kept up for some ten minutes before the child came round. It was then discovered to have Double Talipes Equino-Varus, and was accordingly operated upon when four days old. The splints which were put on had to be reapplied every day, sometimes twice a day. On September 10th a swelling was discovered in the right half of the scrotum, which proved to be a strangulated hernia; the child was accordingly taken into the Hospital and the usual operation performed, after which an uninterrupted recovery was made. During the operation it stopped breathing for some time, and was thought to be dead. Attention was now again turned to the feet, the splints being daily re-applied. On October 18th, after a few day's ailing, the child had an attack of acute bronchitis, to which it succumbed on October 13th. To complete the account I might mention that he had a long and tight fore-skin (probably the cause of the rupture), but time could really not be found for circumcision.

I write this brief account more as a surgical anecdote than a clinical report, I have therefore refrained from mentioning all names (which are not a few) connected with it, and likewise particulars as to treatment, &c. Surely many pass even through their three score and ten years with less sickness and suffering than this little one endured during its four short months on earth. Its life was indeed *short* but not *sweet*.

C. J. G.

## STUDENTS' CLUB GENERAL MEETING.

A General Meeting of the Members of the Students' Club was held in the Chemical Theatre, on Wednesday afternoon, October 24th, at 4.15, the President being in the chair. Mr. Durham addressed a few words of hearty congratulation upon the remarkable, social and financial success of the club. He had always felt that such an institution would prove of great service to the students, and he had urged its formation on several occasions. He attributed the great success of the present club to the large share which the students had taken in its evolution and management, and he felt sure that their active interest in its prosperity would not flag. It fulfilled so many of their requirements, providing them with a ready means of obtaining plenty of exercise, the want of which is felt so much during the busy winter session, with comfort and cheerful society, and last but not least with well cooked and well served meals. He took the greatest possible interest in the welfare of the Club, and he looked forward with much pleasure to seeing it established next October in the new College even more commodiously than it is at present.

The Secretary then read his report, together with the balance sheet which had been most carefully compiled by Mr. Wells, and the report of the Auditor.

The Treasurer's report was also read.

Messrs. Pender Smith, Fripp, Fawcett, Allport, Bryant and Russell, were elected members of the committee. Mr. Poolman was elected as auditor. The several bye-laws relating to the Gymnasium which the Committee had made were read and approved of, and Messrs. Nesbitt, N. L. Richards, Ellis Durham, MacDonald, Clowes, Allport, and Pender-Smith were elected members of the Gymnasium Committee.

After a hearty vote of thanks to Mr. Durham, the meeting adjourned.

First Annual Balance Sheet of the Guy's Hospital Students' Club, showing Receipts and Disbursements from September 1, 1887, to August 31, 1888.

| 1887. | | £ | s. | d. | £ | s. | d. |
|---|---|---|---|---|---|---|---|
| To Cash. | Loan from School Fund ... ... | | | | 300 | 0 | 0 |
| „ | Subscriptions, Sept. ... | £9 | 7 | 6 | | | |
| „ | „ Oct. ... | 127 | 14 | 0 | | | |
| „ | „ Nov. ... | 23 | 14 | 6 | | | |
| „ | „ Dec. ... | 9 | 10 | 0 | | | |
| 1888„ | „ Jan. ... | 17 | 12 | 0 | | | |
| „ | „ Feb. ... | 5 | 15 | 0 | | | |
| „ | „ March ... | 8 | 9 | 6 | | | |
| „ | „ April ... | 5 | 8 | 6 | | | |
| „ | „ May ... | 4 | 2 | 6 | | | |
| „ | „ June ... | 1 | 17 | 6 | | | |
| „ | „ July ... | 3 | 7 | 6 | | | |
| „ | Per Dr. Pye-Smith ... | 5 | 0 | 0 | | | |
| | | | | | 221 | 18 | 6 |
| „ | Sale of Stationery ... | 3 | 0 | 4 | | | |
| „ | „ Periodicals, &c.... | 4 | 12 | 3 | | | |
| | | | | | 7 | 12 | 7 |
| „ | Rent from Mr. Millson to March 25th, 1888 ... ... .. ... | | | | 7 | 10 | 0 |
| „ | Received from Mr. Pender-Smith, a/c of Old Reading Room ... | | | | 7 | 10 | 0 |
| | | | | | £544 | 11 | 1 |

| 1888. | | £ | s. | d. | £ | s. | d. |
|---|---|---|---|---|---|---|---|
| Sept. 1. | To Cash Balance to New Account, 1888-1889 ... | 20 | 3 | 0 | | | |
| „ | Petty Cash Balance, 1888-1889 ... ... | 5 | 5 | 5 | | | |
| | | | | | 25 | 8 | 5 |
| 1888. | | | | | £ | s. | d. |
| By Cash. | Furniture, Fittings and Repairs ... | | | | 337 | 5 | 7 |
| „ | Repayment of Loan to School Fund | | | | 100 | 0 | 0 |
| „ | Newspapers, Periodicals, &c. ... ... ... | £21 | 6 | 0 | | | |
| „ | Printing, Stationery, &c. | 15 | 6 | 9 | | | |
| „ | Telephone ... ... | 7 | 0 | 3 | | | |
| „ | Cleaning Steps as agreed | 2 | 2 | 4 | | | |
| „ | Solicitor (Agreement) ... | 2 | 13 | 6 | | | |
| „ | Gymnasium Account ... | 18 | 6 | 5 | | | |
| „ | Chess, &c. ... ... | 5 | 2 | 3 | | | |
| „ | Petty Disbursements made by Mr. Lane ... | 4 | 14 | 7 | | | |
| „ | Clerical Expenses ... | 5 | 5 | 0 | | | |
| | | | | | 81 | 17 | 1 |
| „ | Balance of Cash in hands of Treasurer ... ... | 20 | 3 | 0 | | | |
| „ | Balance of Petty Cash in hands of Secretary ... | 5 | 5 | 5 | | | |
| | | | | | 25 | 8 | 5 |
| | | | | | £544 | 11 | 1 |

Audited and found correct, October 16th, 1888.

JOHN POLAND.

# Sport.

## FOOTBALL.

Guy's v. Kent Rovers.—Played on October 13th, at the "Greyhound," Dulwich, the Hospital winning by a goal and a try to a dropped goal.

During the first half nothing was scored, but the Rovers had the best of the game, the Guy's forwards playing in a very slack manner, keeping the scrum much too tight. Soon after half time, from a kick out after a touch down, Longinotto caught the ball about half way and making his mark dropped a very good but lucky goal, the ball pitching on the cross bar and bouncing over. After this being scored against us, our forwards played up with great dash and determination, and rushing the ball into their 25, Prime gained a try, his attempt at goal looked very much like a success, but the referee gave it against us. Directly after the kick out Muncaster secured a try, this time Prime converted it into a goal. Wallis, who was now playing middle ¾, put in some very smart runs and passed most unselfishly. Besides those already mentioned, Steele, Allport and Pantin played well. Barr was very disappointing, taking his passes very badly.

Guy's.—S. S. Wallis (back); C. J. Prime, V. Barr, J. H. Bettington (¾); H. G. Steele, J. H. Bryant (½); A. Alport, W. G. Rogers, H. Wilks, W. C. Swayne, G. M. Pratt, J. H. Bryant, Pantin, Layman, H. A. Smith.

Kent Rovers.—Petersen (back); Leresche, F. S. Howard, E. Kitchener (¾); Longinotto, W. Croaker (½);

H. G. Thompson, Waterson, H. Mangham, R. Andrews, P. J. McKinlay, T. Stewart, Hooper, F. R. Brown.

Guy's v. Croydon. Played on October 20th, at West Croydon, and after a most evenly contested game won by the Hospital by a goal and a try to a try. Croydon won the toss and elected to play with their backs to the sun, at first the game was in the Guy's 25, but gradually our forwards worked the ball across the half way line, T. G. Swayne and Allport being especially conspicuous in the loose. Mitchell, who was playing a perfect game at middle three-quarter, passed splendidly to Bettington, who scored the first try. Prime's shot at goal was unsuccessful. After the kick out the Croydon men played up with renewed vigour, and again forced the ball into the Hospital 25, but our forwards gradually got the ball into neutral ground, and soon after this half time was called. Berney re-started for Croydon and the game became faster than ever, Kelsey by a smart dodgy run obtained a try for Croydon. Howard's shot at goal was unsuccessful. Prime kicked out for Guy's, and soon after Bettington obtained the ball and after a long run along the touch line gained another try, this time behind the post, Mitchell converted it into a goal. After about 10 minutes' hard play time was called, nothing further being scored. Besides those already mentioned, Wallis, Steele and Pantin played well. F. M. Russell umpired for Guy's.

Guys.—S. S. Wallis (back); W. G. Mitchell, C. J. Prime, J. H. Bettington (¾); H. G. Steele, J. H. Bryant (½); A. Allport (capt.); F. G. Swayne, W. C. Swayne, J. Fawcett, H. Wilks, J. H. Muncaster, G. M. Pratt, Pantin, Sayman.

Croydon.—C. W. Fiest (back); H. L. Turner, G. Turner, S. E. Hubbard (¾); G. Marks, W. N. Kelsey (½); G. F. Berney, D. H. Helps, Harland, E. H. Platt, F. Beard, E. R. Fairless, H. W. Myatt, T. Grundy, C. Nicholas.

Huddersfield v. Guy's.—Played at Raynes Park on Monday, October 22nd, and resulted in a win for the former by 4 goals (one dropped) to 2 tries (Steele and Prime).

## CRICKET.

On October 24th, a United Hospital Cricket meeting was held at King's College Hospital, at which a complaint was made by the Guy's representatives concerning the non-delivery of the Challenge Cup won in July last. Mr. Standring, the Hon. Treasurer, explained that owing to the matter having to be adjourned at the last meeting in July, there had been no means of putting forward the facts of the case to the various Hospitals, hence he had not felt justified in paying in the money to Messrs. Mappin & Webb without the complete sanction of the Committee. He proposed, at the same time, that a sum of £2 should be asked from the Secretary of each Hospital towards defraying the expense of the new cup, in order to make up the total required (Guy's having paid in £33 6s. 8d. on April 22nd). This proposal was carried unanimously, and the day following, our Secretary received a copy of the notice which had been sent round. The other Hospitals, apparently, have not been prompt in responding to the small demand of £2 each, for on writing to Messrs. Mappin & Webb requesting that the cup should be duly forwarded, an answer was received that owing to the required deposit not having been paid the cup should be left in abeyance until Monday next, October 29th. A formal apology from the Officers of the U. H. C. C. was sent in to the Captain of our Club, which is published below.

There is a balance of £2 0s. 10d. in the hands of the Treasurer of the cup fund, and Mr. Durham and Dr. Pye-Smith, who were the prime causes of this balance, have very graciously requested that this sum should be utilised and given as a special prize. Mr. J. C. Shenton is to be the happy recipient, for his scores of 172 v. University College Hospital, and 149 not out v. Bart's in the final cup tie.

There is to be a general meeting on Thurday next, November 1st, at 2 p.m., in the Anatomical Theatre, when Mr. Durham, the President, will take the chair. The business to be transacted will be the reading of

(1). The Report of the past year.
(2). The general balance sheet of the club.
(3). The balance sheet of the cup fund.
(4). The resignation of past Officers.
(5). The election of Officers for the coming season.

It is hoped too, that the presentation to Mr. J. C. Shenton will also take place; but as that gentleman is at present away from town, it is not certain whether this pleasant act will be able to be publicly carried out.

## UNITED HOSPITALS C.C.

Students' Club, St. Thomas's Hospital, S.E.
*October 16th, 1888.*

Dear Sir,—The Officers of the United Hospitals C.C. beg to offer to the Guy's Hospital C.C. their apology for the delay which has taken place in reference to the cup, a full explanation of the cause of which was given and accepted by your representatives at the meeting held on Friday last.—Yours sincerely,

Capt. C. C. W. F. UMNEY.,
Guy's Hospital, S.E. Hon. Sec. U. H. C. C.

Compression *v.* Cremation.—Dr. Cooper, of Pittsburg, has invented a process which he expects will supersede embalming and cremation, being much less expensive than either. He subjects a dead body to hydraulic pressure, and condenses it into a small solid block, like veined marble. The body of a full-grown man can, he claims, be reduced to a cube of twelve inches. Dr. Cooper exhibits a small cross, apparently of marble. "That," says he, "is the body of a child, converted into a handsome ornament." The material is tasteless, odourless, and seemingly imperishable. Cremation costs £10. Compression will cost only a fifth of that sum.

**Guy's Hospital Gazette,**

*NOVEMBER 10, 1888.*

## NOTES ON A CLINICAL LECTURE

Given by Dr. PAVY.

### PNEUMONIA.

I.

J. W., boy, aged 10, was admitted for difficulty in breathing and pain in the side. Temp. 102.

*Family History.*—Father alive, 37; ill with Consumption. Mother alive, 33; well. Strong history of Consumption on father's side; several brothers and sisters, all young, most of whom have delicate chests.

*Previous History.*—Has always been rather delicate, and has suffered more or less with cough, mostly in winter.

*Present Illness.*—On October 6th, began to be out of sorts; two days after, became worse, with feverishness, headache, pain in side, and nausea. Had some cough and constipation; had to take to bed.

*On Admission.*—Cheeks flushed, skin hot and moist; pain in left side of chest. *Respiratory system:* Resp. 54, not shallow. Right side moves better; fremitus equal; dullness up to spine of scapula on left side, with tubular breathing; increased voice sounds œgophonic below, and well marked whispering pectoriloquy. Some fine crepitation; friction sound in left axilla. On right side, tubular breathing and pectoriloquy at one spot below scapula. Cough; no sputum. *Alimentary system:* Tongue moist, furred; herpes. Appetite bad; thirst; constipation. *Circulatory system:* P. 104, full, compressible; no abnormality. *Urine:* acid, 1027, dark; trace of albumin.

II.

A. C., aged 28, woman, was admitted for cough, pain in limbs, and temp. 103.

*Family History.*—Father died at 42, of bronchitis. Mother alive; several sisters died young of whooping cough.

*Previous History.*—Always strong and healthy; caught cold a fortnight before admission from exposure, with cough and expectoration.

*Previous Illness.*—Taken ill 4 days before admission with chilliness, headache, pains all over, loss of appetite, thirst, constipation, scanty high-coloured urine, and cough.

*On Admission.*—Skin hot and dry, face flushed; no herpes; looks acutely ill. *Respiratory system:* Resp. 35, full, frequent cough, sputum rusty, gelatinous. Complains of slight pain in right side. Right side does not move well. Dulness at right base, up to spine of scapula, with increased fremitus, and voice sounds, and whispering pectoriloquy. Râles; tubular breathing. *Alimentary system:* Tongue red, dry; sordes on lips and teeth; appetite bad; thirst; constipation. *Pulse* 104, full, compressible. *Urine* dark, 1023; a trace of albumin; chlorides deficient.

After mentioning these two cases of *Lobar Pneumonia*, Dr. Pavy said that the disease was to be regarded as a local inflammation suddenly invading a certain area of tissue, usually caused by exposure to wet and cold, through the nervous system. The first effect is a vaso-motor disturbance, giving rise to congestion, then inflammatory exudation into the air cells, which thus become solid by being plugged with lymph. The issue depends on the amount of lung tissue involved. If patient be healthy, and the amount of mischief not large, the result is good. Double pneumonia is far more serious, and may prove fatal. Usually, in favourable cases, resolution takes place. In other cases, cavitation and phthisis. Persons with weak chests are more liable to pneumonia.

*Treatment.*—Counter irritation, by blister, is the best method. Hot poulticing is pernicious,

ıay ease the patient, but encourages inflam-ıation by dilating the vessels. A blister favours contraction of the dilated vessels, and is useful also in pleurisy and bronchitis. Opium should be given, with a cooling saline, and if any tendency to weakness, ammonia and bark.

*Lobular Pneumonia* is a disease arising either by direct extension of inflammation from the bronchial tubes, or by sucking down of matter into the lobules. The influence of hereditary tendency is to be observed in both forms of pneumonia.

Lobular Pneumonia may originate in a cold in the head, which has descended to the chest. Resolution and absorption may occur, or on the ɔther hand, degeneration, disintegration, cavi-ation, and phthisis, which often starts thus, nd is more likely to follow this form of pneu-onia than the lobar variety. In other words, mere nasal catarrh may end in phthisis.

*Phthisis.*—May originate as above, or from bercular deposit, with inflammation breaking wn into cavities, &c. This deposit is of two ıds: (1) grey and (2) yellow. (Some think e latter is merely a degenerated inflammatory roduct, and not started by tubercles; others say that it is always preceded by the grey form). Dr. Pavy holds that you may get lobular pneumonia leading to yellow tubercle, and then miliary tuberculosis by general infection. With regard to the part played by tubercle bacilli. Dr. Pavy expressed the view that these bacilli are prone to attack any part where they find a suitable locality or soil for their development. In healthy lungs sufficient resistance is offered to their growth; but in lungs in which lobular pneumonia is present, they find a suitable soil, and this resistance is wanting.

We are compelled to postpone till our next Number the report of the general meeting of the Cricket Club.

## ABDOMINAL INJURY—INTERNAL HÆMORRHAGE—ABDOMINAL SECTION—IRRIGATION—RECOVERY.

I am again indebted to Mr. Howse for permission to publish notes of the above accident, which occurred during my last "take-in."

This was the case upon which he gave his Clinical lecture on the 10th and 17th October. Below will be found an abstract of his lecture.

*History of Accident.*—This was given by some fellow workmen, but was unsatisfactory.

J. W., æt. 18, while plastering, tried to step across an opening about four feet wide, but missed his footing, and fell about fifteen feet into the basement. In his fall he struck another man, and his head came in contact with a soft concrete floor.

*Condition on Admission.*—When I saw him in the Surgery at 9.30 a.m. he was very pale, his pulse was feeble and slow, respiration shallow, pupils reacted to light. He did not answer questions when spoken to at first, but five minutes afterwards he told me his name and age. No sickness. No complaint of pain anywhere. He was immediately sent into Accident Ward (No. 30 bed).

On going to see the patient after he was in bed, I found him complaining of pain in the abdomen. His pulse had now increased to 87, and was very compressible. Pain in the abdomen was not localised, but was general, and of a starting nature. Abdomen was distended and tender; breathing almost entirely thoracic; legs drawn up, and thighs flexed upon the abdomen. He was still very anæmic, and complained of thirst. Several slight scratches to be seen on left frontal region. Rather restless. Vomiting a little.

Tuesday, 18th September, 11 a.m.—Tr. opii. ♏ v., 4tis horis. Milk, ʒ vi. Inj. morph. gr. ¼, statim. Ice to suck. Catheter was passed, and clear urine drawn off.

6 p.m.—Inj. morph. gr. ¼. Tr. opii. ♏ vii. 4tis horis.

9.30 p.m.—Omit opium. Mr. Lane saw patient, and on placing one hand on one side of abdomen, at lower part, felt a wave transmitted by a tap on the other side.

Wednesday, 19th., 2 a.m.—Tr. opii. ♏ vii. to be repeated at 6 a.m. and 10 a.m., if awake and and in pain. Milk, ʒ ss. every two hours. Ice to suck, in moderation. Enema of warm water, ʒiv. Enema of port wine, ʒiv. at T. of 108°, if sickness continues.

Mr. Howse saw patient, and said very likely he would explore to-morrow.

Thursday, 20th, 10 a.m.—Patient vomited eight times during the night, bringing up fluid of a bright, yellowish, green colour. Complains more particularly of pain in left hypochondrium, at the posterior part. Urine very highly coloured. No blood. No albumen. Bowels open slightly once in the night.

11 a.m.—I asked Mr. Lane to see the patient, and he considered it a case to be operated on without delay. Mr. Howse was telegraphed for, and I ordered the patient an enema of brandy, ʒij.; beef tea, ʒij.; yoke of an egg, liq. pancreaticus, ʒj. statim, 12.20 p.m.

Patient was chloroformed and taken to the theatre at 2.35. p.m. Abdomen shaved and washed, first with liq. potassæ, and then with lotio carbolici (1/40). Median incision, 2½-3 inches, commencing about 4 inches above umbilicus. Peritoneal cavity opened; omentum: then greatly distended intestines and blood of a dark colour were seen. No feculent odour. No peritonitis. Keith's drainage tube passed down towards bladder, but very little blood escaped.

Mr. Howse then determined to irrigate the abdominal cavity, and a 2% solution of boracic acid at T. 104° F. was used. A moderate quantity of blood was washed out with this solution, but the distension remained about the same. During the operation the conjunctivæ and lips became more anæmic, and it was thought that probably the bleeding was still going on; but towards the end of the operation the colour of both improved.

Quill sutures were used to bring the peritoneal surfaces in contact, and wire sutures to bring the edges of the skin together. Carbolic gauze, iodoform, and strapping were used, and outside these a many-tailed bandage was put on rather firmly.

6 p.m.—Slightly restless. Pulse very good.

9 p.m.—Dressings were soaked quite through, and he was dressed again under the spray.

Friday, 21st, 2 a.m.—Tepid water enema every four hours. Tr. opii. ♏ vii. if in much pain. Zyminised suppository every eight hours.

11 a.m.—Easier than he was before the operation. Bowels open twice after the operation. No blood, nor anything abnormal. Very much less distension of abdomen. Pain in left shoulder. T. 99.8. Hungry and thirsty. Sick after the operation.

8 p.m.—Inj. m. hyp. gr. ¼.

Saturday, 22nd.—Pain in shoulder less. Slept well last night. P. 100.

Sunday, 23rd.—Zyminised and Slinger's suppositories, alternately, every eight hours. Repeat tepid water enemata, ʒvi. milk, every two hours. Ice.

Sunday, 23rd.—Dressed last night. Abdomen normal size. Continues to improve. T. 98·6. P. 85.

Tuesday, 25th.—T. last night 100·2. P. 66. Anxiety much less than it was a few days ago. Dressed to-day. Quills removed. No headache. Sleeps well.

Wednesday, 26th.—Bowels open last night and this morning. P. 64. R. 18. Milk ʒj every 2 hours.

Thursday, 27th.—Milk ʒiss. 2tds horis. Slinger and Zyminised suppositories alternately every 12 hours. Tepid water Enemata 6tis horis.

Friday, 28th.—No pain. T. 97 this morning, and 99° this evening. Milk ʒj. every hour.

Saturday, 30.—Milk ʒj. and barley water ʒj. every hour. Rice pudding or bread and milk once a day.

Tuesday, October 2nd.—Sleeps a great deal during day.

Wednesday, 3rd.—Rice and bread and milk once a day. Bowels not open since Sunday morning.

Thursday, 4th.—Farinaceous and barley water.

Friday, 5th.—Fish. Says he feels "first class."

Saturday, 6th.—Enema glycerini ʒj. h.n. Bowels open.

Thursday, 11th—Enema glycerini ʒj. Chicken or fish diet.

Sunday, 14th.—Pulv. glycyrrhizæ co. ʒj. h.n. To sit up in bed.

Monday, 15th.—Mist Sennæ ʒj. Rep. cras mane.

Tuesday, 16th.—Enema glycerini. Rep. c.m., s.o.s.

Wednesday, 17th.—To get up on wheel couch after tea. Middle.

Thursday, 18th.—To get up after dinner. Liq. hydrarg. perchlor., ♏ 80., Aq. ad. ʒj. t.d.s.

Saturday. 20th.—Enema glycerini ʒj. Mist. sennæ ʒ iss.

Tuesday, 23rd.—Patient now walks about ward quite well.

*Remarks.*—The history of the accident, and the symptoms and condition of the patient when seen in the surgery, made me think his was a case of simple concussion of the brain, and I sent him into the ward with a paper to that effect. I had remarked in the surgery that his pulse was not irregular, nor so frequent as was usual in cases of concussion, in fact it seemed markedly slow.

In the ward he was noticed to be pale and restless, and complained of thirst. Internal hæmorrhage suggested itself. Where did it come from? Soft catheter was passed. No blood in urine. Not ruptured bladder. Probably not kidney. Might be liver, spleen, intestine or stomach.

*Ruptured kidney* not very uncommon. Hæmaturia a frequent though not invariable symptom.

*Ruptured spleen* not so common as ruptured liver. Often associated with fractured ribs, as was the case in the boy, æt 8, with cirrhosis of liver. His eleventh rib was fractured.

*Ruptured stomach* is a rarer accident than ruptured intestine, owing to its more protected position. There was no blood in the vomit.

*Ruptured liver.* The symptoms in this case were those of ruptured liver, viz., pallor, coldness of surface, shallow breathing, feeble pulse, pain, vomiting, abdominal distension. The rupture need not have been very extensive. We may get peritonitis, abscess, jaundice or diabetes following this accident, if it is not fatal at once.

*Ruptured intestine.* This was seriously thought for some time by several to be the cause of the symptoms.

*Ruptured gall bladder* means almost instant death. Symptoms of peritonitis may set in from 6 to 36 hours after injury. The symptoms in this case might have been due to bruised peritoneum, or to irritation of the peritoneum by an effusion of blood.

Mr. Howse had a consultation about the case, and although the liver dulness was much diminished, and abdomen was extremely resonant, still he did not think this a case of ruptured intestine. By some it was reasoned thus:—Here we have a case of abdominal injury, extreme distension, liver pushed up under ribs, extravasation of air into abdominal cavity.

Mr. Howse stated the tympanitic resonance need not necessarily be due to air in abdominal cavity, but explained the distension with resonance and loss of liver dulness as follows:—Effusion of blood into peritoneal cavity, pushing

forwards and upwards of intestine, back part of liver pushed against diaphraghm, and front part (thin edge) in contact with ahdominal parietes. Resonance is obtained *through* the thin edge of liver from intestines immediately beneath. This was proved to be the case when the abdomen was opened, as no air rushed out of peritoneal cavity, and the intestines immediately came to the front.

Possible cause of distension, but not in this case :—Peritonitis, spread of inflammation to muscular coat of intestine, paralysis of intestine. Distension in this way would not appear before 48 hours. Mr. Howse mentioned a similar occurrence in connection with the heart, viz., pericarditis, myocarditis, dilatation.

Mr. Howse drew particular attention in his lecture to the peculiar rusty-brown colour of the blood, showing it had been existing many hours, and was undergoing changes of retrograde metamorphosis, but was not decomposing. Difference between physical signs of ascites and hæmorrhage. Why is loss of liver dulness not marked in ascites? Because here we get a *gradual* and *general* diffusion, but in cases of hæmorrhage the blood comes from one particular spot where the injury takes place, and does not diffuse all over the abdomen, but tends to *accumulate at the point of injury*. Blood is also poured out *rapidly*, whereas ascites is gradual. Abdomen divided into loculi by mesentery, &c., and so tends to localise fluid rapidly poured out.

Reasons against prolonging incision and securing bleeding point. May be multiplicity of bleeding points, difficulty in returning all intestine, difficulty in finding bleeding point, especially if distension of intestine is extreme.

Mr. Howse thinks one hastens death of patient by returning all the extremely distended intestine.

Mr. Howse then mentioned puncture of intestine to let out air, and stated you generally only got the air out of particular coil punctured, as feculent material rapidly blocks tube.

In puncture without distension—the mucous membrane prolapses and closes the opening, whereas where there is distension the opening remains, there is very little prolapse of mucous membrane and no contraction of muscle, owing to paralysis. Therefore you may get fæculent extravasation in these cases. Mr. Howse suggested the use of a dentist's rubber dam through a hole in which the intestine might be pulled in cases of resection of gangrenous intestine, &c. In the case we are speaking about, no fæculent material was found, but only altered blood. Dangers of manipulating intestine even with antiseptic surgery.

What to do next? Get rid of altered blood. 2 °/₀ Boracic lotion used. As low a 1 °/₀ may be used if made with boiled water. Boracic Acid much more soluble in hot than in cold water. Temp. of lotion important. It is cooled coming down the tube. Stimulates abdominal sympathetic. On closing up abdomen Mr. Howse gave bad prognosis. He thought there was probably a vessel still bleeding, but it would be very hazardous to open up abdomen. He now thinks it was an extensively bruised area, and not a bleeding vessel. Hot lotion may have stimulated vessels and caused an increased flow of blood, but as the lotion cooled it caused a contraction of the vessels. No more bleeding after operation. Abdominal section for injury to intestine has generally been done for punctured abdomen.

Signs of injury to intestine. Tympanitic resonance not to be trusted too much. *Escape of Fæces from wound. Protrusion of Viscera, esp. Omentum.* Blood per rectum or mouth. *Flatus through wound.* Shock.

If symptoms of Diffuse Peritonitis—open up abdomen. If puncture through Rectus—open up wound longitudinally, and do not make a fresh wound through Linea Alba.

Mr. Howse spoke of methods of suturing intestine. Important points; bring serous surfaces together; turn in edges of slit in intestine; needle should not go through mucous membrane of intestine.

Double row of sutures not necessary, unless very large wound.

Method of closing abdominal incision. Peritoneal surfaces opposed. Use quill sutures (No 12 or 14 catheters, and thick, long, silk sutures).

Nothing smaller than a 12 catheter, as a rule, should be used. Tightness of quills very important. If too tight, produces compression of veins, swelling of part outside quills, discolouration, effusion of blood, blebs, and sloughing.

See that nothing gets entangled in the wound. Fingers beneath each silk suture. If any of sutures are too tight, they may be cut, but not be withdrawn.

Dangers of not coapting peritoneal surfaces. Treatment of these cases requires care—rest. Avoid purgatives. Very low diet Nutrient suppositories. Warm water relieves thirst.

In my report in your last issue of Mr. Howes' case of otitis media, I forgot to mention in the post-mortem report that flakes of lymph were found in the lateral ventricle. This is of importance with regard to the diagnosis of rupture of the abscess into the lateral ventricle.

HERBERT V. HICKMAN.

## NOTES ON RECENT SCIENCE.

The most recent development of instantaneous photography is to be found in the experiments of König and Anschütz, described at a meeting of the Berlin Physical Society last month. They consisted in obtaining a photograph of a cannon ball travelling at the rate of 400 metres per second. The cannon ball was projected in front of a white screen illuminated by direct sunlight, occupying in its passage 1-40th second, during which time three negatives were taken.

Only one successful picture was obtained; but the possibility of photographing projectiles, and of the accurate determination of the several time intervals was demonstrated. The firing of the cannon, the momentary exposure of the plate, and the recording of time on the chronograph, were provided for by electric currents. Development of photography in this direction could hardly go farther.

At a meeting of the Medical Congress in Washington Dr. Lamb described a singular abnormality which he had observed in a considerable number of human breast bones. It was the occurrence of an eighth rib, the cartilage that is usually found below the seventh rib being fully developed into a true rib. The author possessed four specimens in his own collection, and there were eight more in the American Army Medical Museum. In all these cases the phenomenon occurs in negroes, but one additional specimen is that of an Indian.

The polymerization of organic cyanides is an important operation in chemistry, as it is not impossible that complex animal and vegetable products may be normally built up on these lines. Professor E. von Meyer, of Leipzig, has obtained two new polymers of ethyl and methyl cyanides. They are of the same percentage composition as $CH_3CN$ and $C_2H_5CN$, but with twice the molecular weight. The ethyl body is formed by adding sodium to a solution of the normal cyanide in ether. Gaseous ethane comes off, and a white precipitate falls. The latter is filtered off and decomposed by water, when the new body separates as an oil, which afterwards becomes crystalline. Ordinary ethyl cyanide is a liquid boiling at 90°C, while the new substance is a solid melting at 47°-48°.

The selective power possessed by the different organs of the body with regard to the storage of drugs is of interest in therapeutics, and also, in the case of poisons, in medical jurisprudence. Dr. Lovett, of Havard, describes ("Journal of Physiology," vol. ix., p. 99), some investigations on the storage of strychnine. He finds, as might be expected, that the spinal cord shows a greater storage power for this drug than do the other organs. The amount necessarily present in the cord to produce the outset of convulsions seems to be approximately a constant quantity, be the dose large or small.

There are two facts (or statements) with regard to fibrin ferment which are perhaps not generally known. First, it is not soluble in distilled water (Gamgee). The apparent solution obtained in Schmidt's method being due to the salts, which are first dissolved from the ferment powder. Secondly, prolonged contact with alcohol renders it wholly inactive. Dr. Halliburton finds that from six to seven months' exposure to alcohol is sufficient to destroy its power. Thus, in preparing it by the ordinary method, too long treatment with spirit should be avoided.

# Passim.

THE New Year is approaching, and we hope its advent will materially increase the circle of our readers. Intending subscribers should leave their names at the Office of the Medical School.

WE intend that our columns shall contain matter of interest to Students of all grades; and we are able to announce that arrangements are being made for a scheme which will greatly enhance the value of the GAZETTE. That is to say, we hope to publish a series of high-class pathological photographs, chiefly of cases in the Wards, with letterpress descriptions. The utility of such photographs, as an aid to reading, needs no comment.

A MEETING of the Physical Society will take place this evening at the usual hour.

THE energy of our football teams has made an unusual demand on our columns this week; five important matches being reported. Those who did not see the Huddersfield match will be glad to read that it was by no means the one-sided affair that the score might seem to indicate. Our men showed good form, especially at the close; and the play was very even throughout.

## MALINGERING.

The subject of this account is a girl of 16, rosy cheeked, her countenance betraying only the most child-like innocence and apparently incapable of the smallest deception.

She was attending the Surgery of an old Guy's man in April last, for a "condition of things" which one would describe as a state of venous congestion of left forearm and hand. It was of a purplish red colour, was much swollen and pitted on pressure. She complained of severe pain in it and of its being cold and powerless.

The condition was limited very definitely to the forearm and did not extend higher at any time.

She was examined very carefully, but no cause could be found for this condition and she continued attending for some time, the state of the forearm varying from time to time, till, at last, on one occasion it was observed that marks of constriction were present just below the elbow, and as the sleeve of her dress seemed tight she was instructed to slit up and wear it loose.

The next time she was seen she was much better and the forearm ultimately assumed its normal condition.

She was then lost sight of till July when I was doing the locum and she then presented herself with the left forearm in a condition worse than before. I proposed to examine the axilla and arm but she begged to be excused removing her jacket, in such a modest and ingenuous manner as to disarm suspicion, and as I was pressed for time I did not urge her further, but requested her to call on her way home at a neighbouring Hospital with a note for the Resident House Surgeon, a distinguished Guy's man. He examined her and discovered that just below the elbow was a firmly tied handkerchief. This was removed and an inside rectangular splint applied and the arm and forearm freely blistered.

A. S.

# Physical Society.

THE following is an abstract of MR. MCILWAINE'S Paper on "Medicine in Relation to Pathology":—

The author found it best to treat the subject historically. He took as a type of primitive medical practice the arts of the Australian Pain Doctor, and gave an amusing account of the curriculum by which that individual became distinguished from the laity of ordinary black fellows. It consisted, chiefly, in visiting the bush, unprotected by any talisman; a deed beyond the courage of the average native. His reputation is based on his own account of what happens during this excursion, and of course depends entirely upon superstition. It was pointed out as important to notice that the beginning of religion and the germs of the art of medicine had a common origin, and that in the earlier historical period it was the priests who acted as doctors.

It was so among the Egyptians where the healing art was a function of the priestly office. Dissection of the human body was forbidden among them, and their ignorance of anatomy was therefore almost complete; yet, in a sense, the Egyptians had a pathology, and they performed many important operations, as, for instance, the removal of cataract and stone, amputations, and the treatment of fractures; while they even inserted artificial teeth. The great Asiatic civilizations knew nothing of the rational treatment of disease, even the Hindoo anatomy and physiology being little but speculation. Chinese medicine was purely superstition.

The Greek took up and advanced the Egyptian art, but it remained in the hands of the priests till 600 B.C., when medical study commenced to have a more or less independent existence.

Hippokrates, who was living about 400 B.C., was limited by the absence of any science to guide him; yet he was a man of such keen insight that his words seem to leap over 2,000 years. "The doctor is a servant not the master of nature;" this was a saying of Hippokrates. After him came the Schools, under which anatomy was encouraged, while Aristotle and his pupils grounded scientific pharmacology and mineralogy. By 300 B.C., anatomy had made some real advance, but physiology lagged far behind, and in pathology the old *humoral* ideas were still supreme.

Among the Romans, who simply borrowed their medical system from the Greeks, the art was not considered an honourable calling till as late as 100 B.C. About 200 A.D., came the great Galen, who made very real advances and whose influence lasted till the 16th century. His physiology and pathology read quaintly to us, but they were based upon real experience and experiment, and thus contrasted greatly with what had gone before. Like Hippokrates, Galen considered that "Nature cures, not the doctor." In the middle ages, medicine, like everything else, became obscured; but in the 16th century advances were made in anatomy by men like Eustachius and Fallopius. The 17th was a century of great progress in science; but medicine, though so old an art, was yet too young for a science. We hear much of Sydenham at this time, though his work was not of a kind to advance medicine and pathology in any way; yet of Conrad Schneider, who gave humoral pathology its death blow, we read but little. The great event of the century was, of course, Harvey's discovery of the circulation. In the 18th century, a reaction to idealism set in, and since the true nature of respiration and the circulation was more or less cleared up the theorists fell back upon the nervous system and there ran riot. But then came men such as Hunter and Morgagni, who began the movement of to-day.

It is too soon yet to properly estimate the progress of our own century. Throughout it, medical theories have continued to remain more or less behind anatomy and physiology; as witness the prevalence of the stimulating and depletory methods some forty years ago, and that of homœopathy to-day. But while these schools have been dreaming the dreams of pre-scientific medicine, there has been a steady struggle among enlightened medical men to bring their profession up to the level of the other sciences. The foundation was not complete till the cellular pathology of Virchow and his followers was established. This put aside alike the old dogmatic humoral and solidest pathologies of the middle ages, and the equally erroneous tendencies of a coarsely chemical and mechanical view. (The concluding portion of the paper follows verbatim.)

The establishment of the cellular doctrine opens the last chapter in the history of pathology, and it, as well as the corresponding chapter of the history of medicine, we have come to Guy's to read for ourselves. From this short sketch of the history of medicine and pathology, I think we can gather material for a fair conclusion as to their mutual relation. When the human race was in its infancy, medicine existed only as part of the vague fears and hopes that arose from a total ignorance of the meaning of all natural phenomena. Death and disease and their causes were personified, and then, having endowed imaginary beings with the power to inflict injury, men naturally ascribed the power of protecting from such injury to the same individuals; and so in the myths which form the earliest portions of its history, every branch of medicine is under the control of some specially appointed deity. Thus medicine began as the outcome of a childish imagination quite unchecked by scientific thought and almost unfettered by reason, properly so called. It was an art without any science. In those days it is fair to say pathology did not exist, for pathology (the anatomy and physiology of disease) is and always has been a science. When men began to look for natural causes for disease, pathology came into existence.

You will remember that till about 600 B.C., medicine remained an integral part of religion. Drugs were used, and a considerable mass of useful observations had been made, but the gods, through their priests, were still the sole controllers of disease. About that time, that is, rather more than 2000 years ago, medicine started on its own account. It allied itself with pathology, and claimed to be called a science; men ascribed an anatomy and a physiology to disease. The task of pathology and the other sciences has been the reclaiming of nature from the supernatural influences under which humanity in its childhood's imagination had placed her; and pathology, which deals with nature's latest production, has naturally been the last to complete its work; but it has been the greatest work of all. Pathology has at length placed medicine on a scientific basis, we hear everywhere now.

This means two things. In the first place it means that medicine has renounced magic; it has ceased to dream of specifics and elixirs, and is no longer the art of curing disease by drugs; but it means also, that once a science, medicine has possibilities opened to it that the ancients could not even imagine (it is only necessary to mention the rational prophylexis and hygiene of the present day). In fact, the art of medicine, the art of palliating disease and suffering, of patching poor humanity with drugs, has been so completely overshadowed by the science of medicine, that we run a risk of despising the art altogether. If we do, it is our own fault, for, while pathology has put the privilege of belonging to a scientific, an honourable profession, within the reach of all of us, it has not degraded the art of medicine, but enlarged it, enlightened it, and, one may say, forced it into its proper sphere.

the bar. "No side" was then called, leaving the visitors victorious by four goals and two minors against two tries and three minors.

The match throughout was of a very even character, the difference in the scores not representing the state of the game. Had our men set themselves properly to work at the commencement, the difference between the two scores would have been very slight indeed. Our team played well to a man, especially in the second half, but too much praise cannot be given to F. G. Swayne and Biggs for their honest work throughout the match, both of them being very prominent in the loose. Sides:—

HUDDERSFIELD.—W. H. Eagland (back); A. S. Brooke, F. W. Richmond and J. Dyson (three-quarter backs); H. E. Archer (capt.) and T. H. Eagland (half backs); J. Clifford, W. Hall, P. Jackson, J. W. Trewlis, W. Schofield, H. Chappell, F. Walker, G. Mitchell and E. H. H. Shaw (forwards).

GUY'S.—S. S. Wallis (back); H. E. Jordan, W. G. Mitchell and C. J. Prime (three-quaater backs); H. G. Steele and J. H. Bryant (half backs); A. Allport (capt.); F. G. Swayne, J. J. Biggs, J. Fawcett, W. Bligh, H. Wilks, W. C. Swayne, J. H. Muncaster, and C. S. Pantin (forwards).

Umpires:—Messrs. G. Harrop and F. J. Nesbitt. Referee:—Mr. W. K. Arber (Richmond).

In the evening the two teams and friends, together numbering about seventy, sat down to an excellent repast at the Students' Club, and we wish to congratulate the proprietor, Mr. Millsom, on the excellent manner in which the arrangements for the same were carried out.

## GUY'S HOSPITAL v. NORTHERN (NEWCASTLE).

Owing to some misunderstanding as to the venue of this match, few spectators were present at the Rectory Field, Blackheath, on Wednesday, October 24th, to witness the game. Allport kicked off for Guy's a little after half-past three. In five minutes, after some loose play, Biggs headed a dribble from the "twenty-five" flag and gained a well-earned try. Bligh took the place-kick, but was unsuccessful. A few minutes sufficed for Bligh to cross the line. He, however, failed in his attempt at goal. The ball was again brought well up within the visitor's territory, where Mitchell, passing to Bettington, the latter dropped a magnificent goal. The Northern Team, after this, played up with rare dash, Knight picking up beautifully, passed a host of his opponents, and with a grand run, scored the first point for his side. Two minutes afterwards, Mitchell, from half way, ran clean in, Bligh kicking a fine goal. When the interval arrived the score stood—Guy's, two goals and two tries to one try. Resuming, play was for some time of a more even character, neither team gaining an advantage. The forwards in each case were well balanced in the "screens," our men evidently depending, to a great extent upon our backs, who throughout played a sterling game. Ten minutes after the resumption Mitchell dropped a fine goal. The Northerners were equal to the occasion, P. Norton obtaining a try from a scrimmage close upon the touch-line. Allport and Mitchell placed further scores to Guy's credit, both goals being sufficiently placed by Bligh, whilst Knight, for the visitors, made the finest run of the day in obtaining his try, going nearly the whole length of the field. When time was called, Guy's were left the victors by five goals and two tries to one goal and two tries. Sides:—

GUY'S HOSPITAL.—S. S. Wallis (back); J. H. Bettington, W. G. Mitchell, and C. J. Prime (three-quarter backs); H. G. Steele and J. H. Bryant (half-backs); A. Allport (capt.), J. Fawcett, F. G. Swayne, J. J. Biggs, W. Bligh, W. Layman, F. J. Nesbitt, C. S. Pantin, and J. H. Muncaster (forwards).

NORTHERN.—E. Emley (back); H. P. Lochart, C. H. Knight and P. Norton (three-quarter backs); M. T. Scott and J. Thompson (half-backs); R. J. Hodgson, T, Clark, C. Norton, A. Watson, C. Scott, L. Stothert, C. Ridley, R. M. Inglis, and A. E. Durham (forwards).

UMPIRES.—Messrs. W. J. Scott and D. J. S. Guise. Referee.—Mr. Norman Spurling (Blackheath).

## GUY'S v. LONDON WELSH.

Played at Raynes Park, on the Hospital Ground, on Saturday October 27th, and resulted in a victory for Welsh by two tries to one try and two tries disallowed. Our forwards were very stale, having played two other matches that week and consequently did not show their proper form, the tackling especially being very feeble. The only score during the first half was a try to the Welsh by Jones which was not improved upon. Fawcett also gained a try but it was disallowed. The second portion of the game was of much the same character, T. O. Raw gaining a second try for the Welsh. Towards the close of the game, Allport gained a try for the Hospital which was not improved upon by Wallis. Hickman also got over the line, but the try was likewise disallowed as in the first half. Time was soon called, leaving the state of the game as above. Sides:—

GUY'S.—J. G. B. Coleman (back); J. H. Bettington, H. V. Hickman (three-quarter backs); H. G. Steele, J. H. Bryant (half backs): A. Allport (capt.); J. J. Biggs, J. Fawcett, H. B. Rygate, H. Wilks, J. H. Muscaster, G. M. Pratt, W. Lawman, C. S. Pantin (forwards).

## GUY'S HOSPITAL v. EAST SHEEN.

Our team had the advantage in this match, which was played at Raynes Park, on Wednesday, Oct. 31st, as, besides having the best of the scrimmages, our passing was altogether superior to our opponents'—who, it should be mentioned were one short—and at the finish we were able to claim a victory by two goals and three tries to nil. Having won the toss, the Sheen captain kicked off shortly before four o'clock. After a few scrimmages the ball was sent back, and before the game had been in progress five minutes, Tuck, by a splendid dodgy run right through the opponents, gained a try. Biggs, who took the shot at goal, missed his opportunity. This was

followed by fresh disasters for the Sheen men, as, on restarting, Wallis got hold of the ball and dropped a splendid goal, following which, Bettington got through his opposing back division and grounded the ball behind the posts, from which Wallis kicked a goal. When half time arrived, our men had still another try added to their score through Biggs, the margin being two goals and two tries in our favour. The play of the Sheen team improved in the second portion of the game, but they could not prevent us again scoring, Biggs and Marriott each gaining tries, Wallis failing to place the goal on each occasion, and when the whistle blew the scores stood:—Guy's, two goals and four tries; East Sheen, nil.

Tuck, who filled the post of three-quarter in Guy's for the first time, played a good all-round game, passing accurately and unselfishly; his dodging is good, and his tackling very safe; with a little more practice, he will be a great acquisition to our team. The following were the teams:—

GUY'S.—T. H. B. Yorath (back); J. H. Bettington, S. S. Wallis, and E. Tuck (three-quarter backs); H. G. Steele and J. H. Bryant (half-backs); A. Allport (captain), T. O. Raw, J. J. Biggs, H. B. Marriott, F. G. Swayne, G. S. Pantin, J. H. Muncaster, W. G. Rogers, and H. B. Rygate (forwards).

EAST SHEEN.—F. B. Hannen (back); F. W. Weekes, F. D. Warden, and E. Rouillard (three-quarter backs); A. G. McArthur and A. P. Koe (half-backs); E. A. Blackwell, T. E. Jones, C. D. Leyden, E. J. Brown, J. H. Gould, A. Paton, J. A. Dawes, and F. W. Cloud (forwards).

*Referee*—Mr. H. M. Jordan (London Welsh).

## KENSINGTON v. GUY'S.

This fixture, which had been looked forward to with no small amount of interest, was unfortunately reduced almost to a farce by the gloomy and miserable weather which prevailed on Saturday last (November 3rd). On arriving at Wormwood Scrubbs we found the ground enveloped in a dense fog, the turf sodden and greasy, whilst here and there were scattered pools of water. Notwithstanding these adverse circumstances, it was determined to commence hostilities.

Allport having guessed correctly to the spin of the coin, our burly adversaries kicked off. The kick was well returned by Biggs, and a scrimmage ensued near the half-way flag. Our opponents at once began to press us, and after a few minutes' play a drop by Sockney caused Coleman to touch down, similar tactics thrice causing Guy's to resort to this expedient during the first ten minutes. Nothing of interest occurred for some time, save an occasional dribble by Fawcett and Pratt, which was responded to by a similar manœuvre on the part of our opponents. Wallis in attempting to save a rush made a very feeble kick, the ball going into touch near our goal line, but our forwards, headed by Allport, averted the threatened danger and carried the fray into neutral territory. A scrimmage ensued, and Bryant gaining possession passed to Bettington, who, vainly endeavouring to catch the greasy sphere, only knocked it into the hands of Rousell, who passed to Taylor; he in turn forwarded it to Sockney, who ran in, but after a lengthy interval the whistle sounded and the ball was ordered back. After several scrimmages in our twenty-five, Philips obtained the ball, and by a series of revolutions, and aided by a crawl on hands and knees, grounded the leather over the line. The point, after some discussion, was allowed by the referee. The place-kick was entrusted to Bligh, who placed a magnificent goal, but the ball being dead the major point was not allowed. Shortly after the whistle, if not the watches, announced half-time, with the score standing—Kensington one try and four minor points to *nil*.

On resuming, Guy's forwards played in a most determined manner; twice they screwed the scrimmage and carried the fray well into their enemy's twenty-five, when Wallis obtained possession and made a capital attempt at a drop, which only just missed the mark, causing Kensington to touch down. After the kick out, our halves, Bryant and Steele, were particularly busy, both putting in some useful work, but our backs could not do anything on the slippery ground. Wallis tried to pass out to Tuck, but Dix intercepted it and made an attempt to relieve his side by a drop, which was charged down by Pantin, who followed up the advantage thus gained by securing the first try for Guy's. The place kick, a difficult one, was not successful. Kensington kicked off, but the Guy's forwards, who were playing a fairly good game, soon rushed the ball back and for a time were the aggressors. A good drop by Taylor relieved his side, and a combined rush of the Kensington forwards carried the ball into our twenty-five, where Rowsell got possession, passed out to Taylor, who ran well up and then transferred to Sockney, who secured a try, which was not improved upon. After this the whistle sounded, the score standing two tries and four minors to one try and two minor points in favour of Kensington.

Allport and Fawcett played a good sound game, and were well backed up by the rest of the forwards. Bryant and Steele at half fully upheld their reputation, but the three-quarter backs did not play up to club team form, Wallis being the only one that tackled with any success, but perhaps the slippery state of the ground was responsible for these shortcomings. Teams:—

KENSINGTON.—Back, C. W. Dix; three-quarter backs, H. C. Sockney (captain), H. E. Taylor, C. H. Knight; half-backs, E. F. Rowsell, R. J. MacKenzie; forwards, L. F. Elliott, J. T. Trotman, E. V. Gardner, A. H. Philip, W. Bligh, H. H. Fyfe, W. Briggs, and J. Elwin.

GUY'S.—Back, C. J. Colman; three-quarter backs, S. S. Wallis, G. Tuck, — Bettington; half-backs, J. H. Bryant and H. H. Steele; forwards, A. Allport (captain), H. J. Holman, W. G. Rogers, J. Biggs, — Pantin, — Muncaster, J. Fawcett, H. B. Rygate, and G. M Pratt.

Guy's Hospital Gazette,

*NOVEMBER 24, 1888.*

## NOTES ON A CLINICAL LECTURE

By Dr. PYE-SMITH.

### ANÆMIA.

Pallor of the face may arise from various causes.

1. The face may be *pure white*, as when a person with healthy color suddenly becomes pale from loss of blood.

2. *Marble white*, as in sudden death of a healthy person.

3. The *olive-green* tint seen in girls with chlorosis.

4. The *leaden, livid*, bluish tint, due to non-æration of blood, in lobular pneumonia, capillary bronchitis, &c.

5. The *earthen*, dirty tint, seen in malarial countries.

6. The *lemon* tint of pernicious anæmia.

I. *Symptoms.*

Paleness of face; but more especially of lips and mucous membrane of mouth, conjunctiva (bluish, or pearly white), gums, tongue (often a yellowish tinge), and nails.

Dyspnœa the most constant and striking symptom. This is due to want of hæmoglobin.

Pulse. Sharp, dicrotic.

Cardiac impulse sharp and forcible. First sound short. Bruit over pulmonary artery, carotids and other arteries. Bruit de diable.

Pupils nearly always dilated.

Œdema of ankles; headache (mostly occipital); urine varies, sometimes pale, sometimes dark.

*The Blood.* Corpuscles diminished in number. In extreme cases there may be only one million, or even half a million.

The following varieties are seen:—

*a. Microcytes.* Small, redder than normal.

*b. Megalocytes.* Large, pale.

*c. Poikilocytosis.* Term applied to the misshapen character of some.

*d. Nucleated* corpuscles, in which the hæmoglobin is collected at one point, or just inside the corpuscle.

In *Chlorosis*, the change is rather a diminution in color than number, large pale corpuscles being found

In *Idiopathic* anæmia, the number is diminished, not the color.

*Post-mortem.* Fatty degeneration of heart, with "tabby" appearance (this can be produced by bleeding). Lungs pale and dry. Kidneys pale, swollen. Liver fatty. The muscles retain their redness.

*Pernicious, Idiopathic, or Addison's Anæmia*, is specially characterised by the lemon color of the skin; hæmorrhages (through malnutrition of capillaries), particularly retinal hæmorrhage, irregular pyrexia (not found in chlorosis); patient as a rule not young, and originally well nourished.

II. *Causes.*

*a.* Hæmorrhage, including piles, epistaxis.

*b.* Parasites. (1) Sclerostomum (ova found in fæces). (2) Bilharzia.

*c.* Want of food, and light (seen in City people).

*d.* Phthisis; cancer; cardiac; Bright's.

*e.* Secondary to acute diseasss, fevers (acute rheumatism).

*f.* Lead, mercury, malaria, syphilis.

*g.* Anæmia Splenica (large spleen; red corpuscles diminished); Leukæmia Splenica (increase of white corpuscles); Anæmia Lymphatica (Hodgkin's disease); Anæmia Myelogenica (change in red marrow).

*h.* Chlorisis.

*i.* Idiopathic, or pernicious, or Addison's anæmia.

On the anæmia of malarial origin, there are often to be found in the blood round or crescentic refracting bodies.

III. *Treatment.*

For chlorosis give full doses of iron.

For idiopathic anæmia do not give iron (in this disease the red corpuscles are destroyed, and iron is found in the liver and spleen). Do not give quinine. Pot. Iod. is harmful. Arsenic is the best drug. This is to be given when iron fails. Good food, red wine, plenty of air and exercise, and warm climate indicated. Transfusion of blood not good.

Injection of saline fluids sometimes is useful.

## CASE OF OPIUM POISONING.

This case was in the Hospital for a fortnight (October 27th to November 9th), and at one time great hopes were entertained that he might go out with his report-sheet marked "cured." This, however, was not to be, for complications arose in the shape of an attack of delirium tremens and pneumonia, which eventually became of a septic character.

The patient was a strong, well-built man, æt 50, and was found by a policeman lying on the floor of a public-house quite unconscious.

Two bottles marked "Laudanum" were found upon him, the contents of which he had been seen to drink by the attendant behind the bar. (The quantity taken was estimated later on to be an ounce and a half.)

Some salt and water was administered, without, however, producing the desired effect, and the man was then brought up to the Hospital.

When seen in the surgery, at 3.30 p.m., he could not be roused, the breathing was stertorous, and the pulse quick and full. On raising the eye-lids, the pupils were found to be contracted to the size of a pin's head.

Treatment was immediately started by a hypodermic injection of atropine gr. $\frac{1}{60}$.

A stomach-tube was passed, and the stomach washed out with warm water.

The respirations became more and more shallow, and the pulse imperceptible, so artificial respiration was performed.

A pint and a half of hot strong coffee was poured through the tube into the stomach.

Liqnor strychniæ ♏ iv. were injected hypodermically, and the battery was freely applied.

Half-an-hour later, the pulse again failed and the breathing ceased, when artificial respiration (Silvester's method) again proved successful.

The condition calling for artificial respiration recurred, on and off, from 3.30 p.m., when he was admitted, up to 10.30 p.m., when he was considered sufficiently recovered to be taken into John Ward.

During this time, half a grain of sulphate of atropine in doses of gr. $\frac{1}{10}$ and $\frac{1}{20}$, and twelve minims of liquor strychniæ were injected. Hot coffee was given per rectum, and several hypodermic injections of brandy ♏ xx. Hot sponges were applied over the heart.

Three hours after admission, after atropine gr. $\frac{1}{20}$ had been injected, the pupils began to dilate, the left more so than the right.

Seven hours after admission, he mumbled indistinctly when shouted at, and a conjunctival reflex was obtained. Respiration 36, still stertorous. Pulse 140, full.

After being put to bed, 18 ounces of urine were drawn off, and on being tested with chloroform and iodic acid gave the morphia reaction (a rose-pink), S. g. 1,006; acid; a slight trace of albumen.

He dozed on and off during the night, perspiring freely. At 5 a.m., he became noisy, and tried to get out of bed. The pupils reacted to light.

October 28th. Answers any questions put to him, but has a certain thickness of utterance, probably due to soreness of tongue from the necessary application of tongue forceps last night. Tremor of both hands. Hallucinations. Complains much of thirst; thinks a glass of ale would set him right. Pulse fairly strong, but

irregular. Temperature 101·4. Respiration 28. Breathing easily.

Bowels were opened after pulv. jalapæ co. gr. xxx. Ordered mist. ammoniæ ʒi. every four hours.

29th. Very noisy again at 5 a.m. Sits up in bed with folded arms, twirling his moustache, and has a restless weary motion of the eyes. Wants to know why on earth he can't go out. Pulse 104, full. Respiration 28. Temperature 101°.

30th. Transferred to strong-room on account of noisiness, and attempts to get out of bed.

Refused his food, so a nasal tube was passed, which so annoyed him that he quickly drank up what was left in the mug.

He was kept strapped down during the day; chattering incessantly and picking at the bedclothes.

Pulse 132, full and soft. Temperature 100°.

31st. Was sweating profusely last night. Had about an hour's sleep. Is taking his food well (milk, half a pint, and two eggs every four hours). Bowels freely opened twice.

Râles audible at both bases with deficient entry of air on the left side.

As he had become quieter, the straps were removed from his wrists. Respiration 64, hurried and noisy. Pulse 104, full and fairly strong.

There is still a trace of albumen in the urine. Ordered Pot. Brom. ʒss. ex. mist. ammoniæ ʒi. every six hours.

November 1st. Moved back to ward. Had two or three hours' sleep last night. Is sleeping again this morning. Takes his food well.

Pulse 104. Respiration 56, sometimes noisy. Temperature 101°, but rose to 103·6° at 6 p.m.

3rd. Temperature 140°. Ordered decoct. cinchonæ, mist. ammoniæ aa. ʒss. every four hours.

7th. He has a hacking cough. Temperature has been high since November 3rd (103° or 104°). Pulse remains about the same, 104, and fairly strong. Respiration rapid, 60—70 per minute. Breath very foul. Rusty and foul-smelling expectoration. Diarrhœa (bowels open six times in 24 hours). Delirium at night

8th. Respirations very rapid. Breath very foul. Temperature 104°. Pulse 120, full, incompressible. Diarrhœa still present.

A steam-kettle containing carbolic acid in solution has been placed near the bed. Ordered sodæ salicylatis gr. x. every four hours.

9th. Face and hands livid—not cold. He lies on his back breathing noisily; mucus evidently collecting in the tubes.

Respiration 52 per minute. Breath very foul.

Pulse 140, full, fairly strong.

Temperature 101°. He answers questions, though indistinctly.

Died at 12 noon.

The *Post Mortem* examination revealed about half-a-dozen gangrenous cavities, varying from the size of a three-penny-bit to that of a five-shilling-piece in the upper lobes of both lungs.

There was a good deal of consolidation in scattered patches.

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Curiously enough, while the above case was still under treatment in the surgery, another case of opium poisoning was admitted. This turned out to be of a much less serious nature, and was discharged a day or two later perfectly well.

On looking through the bound reports for the years 1876 to 1886, I find that the number of opium poisonings reported on was four in 1882, none in 1877 and 1880, and one or two in the other years.

If this represents the actual number of such cases admitted (which is open to doubt as regards cases proving fatal soon after admission), we have been exceptionally favoured this year, since five cases have been admitted during the last six months.

W. P. L. F.

# Physical Society.

## DISEASES OF THE THYROID BODY.

Abstract of a Paper read before the Physical Society, by Mr. F. W. Hall, November 10th, 1888.

The paper dealt with the subject in its clinical aspects, and therefore dealt especially with those diseases which were the commonest and the most important, and admitted of surgical treatment. The author stated that he would endeavour to give sufficient attention to the results of extirpation of the thyroid and their relation to such affections as myxœdema and cretinism.

An introductory reference was made to the anatomy of the thyroid, especially dwelling upon the relations of the gland to the trachea, œsophagus, and the great vessels of the neck. Attention was also drawn to the thin capsular envelope of the gland, the blood-vessels, and the relation of the gland to the recurrent laryngeal nerves.

In describing the histology of the thyroid, especial reference was made to the large lymphoid nodules which accompany the blood-vessels in the substance of the gland, and the importance assigned by Horsley to these nodules as probably possessing a hæmatogenous function.

Four theories of the function of the thyroid body may be mentioned,

1. That it is a regulator of the cerebral circulation.

2. That it secretes something necessary to the nutrition of the brain.

3. The theory of Baber.—That the mucinoid contents of the vesicles are excreted from the blood by the lining epithelium, and that resorption into the circulation is effected by means of the large lymphatics. In short, the thyroid is a mucin-excretory gland, and the mucin undergoes some change, being converted into some normal constituent of the blood.

The theory of Baber is the only one of the above which has sufficient supporting evidence to deserve consideration.

4. The theory first definitely formulated by Horsley, that the gland has a hæmatogenous function in addition to its office as a mucin-excretory gland. This he supports by pointing out the presence of the large lymphatic nodules abundantly supplied with blood-vessels, and the oligæmia following thyroidectomy.

*Effects of Total Excision on Animals.*—In dogs the operation is very fatal, death following in 2 or 3 days. In monkeys Horsley found that the symptoms were very similar to those of the Cachexia Strumipriva of Kocher, noticed after excision of the thyroid in man. The first marked effects begin in about 5 days after operation. The animal becomes listless and the appetite fails. Fibrillar contractions of muscles of face and extremities set in, gradually extend to all the muscles of the body, and finally become exaggerated into powerful clonic spasms. The appetite increases later on, even becoming ravenous, though the animal steadily grows thin and pale. The eyelids become puffy, the salivary glands are enormously swollen, causing great prominences in the cheeks, and the belly is distended owing to hypertrophy of the omentum.

The tremors gradually become less marked and may disappear about 10 days before death, being succeeded in some cases by paralysis, especially of the extensors. There is a steady fall in blood pressure; the red corpuscles and leucocytes both become reduced in number. The hair becomes scanty and the tongue becomes more or less enlarged. P.M. examination showed the subcutaneous tissues and the loose areolar tissue everywhere infiltrated and swollen with a dense sticky jelly-like material chiefly composed of mucin, together with hypertrophy of the fibrous elements of the connective tissue throughout the body. The mucous and salivary glands were hypertrophied; fatty tissue was everywhere atrophied.

Observing the similarity between the results of excision in monkeys, the Cachexia Strumipriva of Kocher, myxœdema, and cretinism, the question arises,—Are these effects due to a single primary cause, and if so, is that cause the withdrawal of the functions of the thyroid, whether due to extirpation or disease?

I. Two forms of cretinism have to be considered: the endemic form of goitrous districts and sporadic cretinism occurring apparently anywhere, and marked in most cases by complete absence of the thyroid body. A cretin in a goitrous district probably owes his infirmities to the same cause, whatever that may be, which produces goitre. His parents or his grandparents may not have been cretins, but they will probably have had goitres. Moreover, a cretin will only be found in goitrous districts, and it is important to note that cretinism, though far less common than goitre, is a gradual hereditary result of decay of thyroid functions.

II. Myxœdema was first described by Gull in 1873, and called by him "the cretinoid condition of adults. This disease is strictly comparable with sporadic cretinism. It is similar in its symptoms, and is, in most cases, marked by atrophy or disappearance of the thyroid body. But while myxœdema affects adults, sporadic cretinism occurs before full development of the body is attained. The differences between these affections and the cretinism of goitrous districts are chiefly due to early arrest of the growth of the skull and stunted growth. There appears to be atrophy of the thyroid *in utero*, and there is an early synostosis of the spheroids with the occipital bones, and this appears sufficient to account for the idiocy of the patients. But Dr. Ord explains the imbecility as due to the same cause which produces the dulness and slowness of perception in cases of myxœdema, viz..—loss of peripheral sensations caused by the mucous œdema affecting the nerve-endings in common with other parts of the body.

In myxœdema, the patient is generally an adult woman. The expression and peculiarlty of the features are quite distinctive. The heavy-looking face, with its general

puffiness, especially below eyes and in front of neck, the enlarged alæ nasi, the thick pouting lips, the swollen tongue, the bright red and rouge-like purple of the cheeks, enhanced by the lazy aspect of the half-closed and swollen eyelids, make a picture more characteristic than the expression of any other disease. The hands are broad and spade-like; the skin is smooth and pale, the hair thin and scanty, but individual hairs thick and coarse. The most active temperament gives way to a gentle placid indifference. In a case of Dr. Ord's, P.M. examination showed that the thyroid was reduced in size, and there were changes in the connective tissue of the body characterised by overgrowth of the fibrous element and formation of a mucinous ground substance

III. *Results of Thyroidectomy in Man.*—In 1883, the brothers Reverdin of Geneva published full details of 22 operations on 21 patients, and their results. They state that in some cases, 2 or 3 months after operation, there came a time when the patient began to feel fatigue after ordinary exertion. There was weakness and some incoordination, especially in the upper extremities. Articulation was slow and hesitating, but correct. There was also noticed in 5 of the 21 cases, puffiness of face and extremities not pitting on pressure, and the complexion was yellowish and pasty, like that of cretins.

Later in the same year, Kocher published the results of 18 cases of total excision, the only ones who had come to him at his request some time after the operation. Of these 18 cases only two were in a good condition of health, and in one of these a small accessory thyroid gland had undergone a vicarious hypertrophy, while in the other a recurrence of the goitre had taken place. All the remaining 16 showed more or less derangement of health, most marked in the oldest cases. The description of the symptoms in these cases exactly tallies with those of myxœdema.

Thus, as Horsely points out, the chief symptoms of all these conditions are exactly alike. In all there is mental deficiency, though more marked in cretins than in the others, for reasons already given. In myxœdema there may be the same muscular tremors which occur as a result of ablation of the gland. The slow response to sensory impulses, the immobile face with its broad and thick features, the enlarged tongue and clumsy articulation, the spade-like hands, the puffy skin, and the dry and scanty hair, are marked peculiarities common to all the conditions. Lastly, the general anœmia and the low temperature are as well exhibited in one as in the others.

*(To be continued).*

## PAST LIST OF THE EXAMINATION FOR THE M.B., LONDON.

1ST DIVISION.—E. H. Brock, H. E. Crook, W. J. Maillard, A. Parkin, J. L. Roberts, H. K. Roper, E. H. Starling, W. Swayne, J. A. Wheeler.

2ND DIVISION.—A. T. Brown, H. E. Cuff, E. Moss, P. N. Randall. G. B. Smith, W. E. Tresidder, T. Wilson-Smith.

## THE CHEMICAL ACTION OF CERTAIN MICRO-ORGANISMS.

*(Continued.)*

It is sometimes forgotten that nearly all pathology has its chemical side. In modern science the pathogenic organism has taken the place of those chemical poisons in the blood to which earlier and cruder ideas assigned the origins of disease. But it should be remembered that, after all, it is probably the chemical products formed by the organism which are directly active, and that these therefore will have to be investigated by the pathology of the future. For instance, it seems to be a general rule that the product which any given organism is able to build up during its activity, becomes fatal to it when a certain percentage is reached. Just as alcohol kills yeast after a certain limit of strength. Suppose now we could discover, among the products formed by the bacillus of typhoid, some one, which, in a particular maximal quantity, would be fatal to the bacillus; and yet (being one of many) not the particular substance which is so harmful to the patient; we should then be able to inject it into the blood, and so have a rational cure for typhoid. Along such lines it is not improbable that therapeutics may eventually become an exact science! At any rate, such considerations as these lend great interest to the careful investigations of the chemical action of micro-organisms. But, in addition to this, Mr. Warrington's work is of the greatest value, as laying a foundation for a classification of organisms by means of their chemical effects, so that we may be able to diagnose the presence of any particular one, without the difficult process of inoculation, or the, often doubtful, aid of microscopy.

We have already stated the results obtained with regard to the hydrolysis of urea and the action on milk. The remaining chemical actions investigated are not of such direct interest to physiologists or pathologists, but are equally important as an aid to classification.

III. The Reduction of Nitrates. Of 25 organisms investigated, 16 proved to have considerable power of reducing nitrates to nitrites; 2 had very little tendency to do so, and 7 were entirely without the power. The bacillus of swine fever and three others were extremely active; B. intestini, B. anthracis, and the bacilli of typhoid and infantile diarrhœa were also active. So also were Micrococcus ureæ, and the spirillum of Asiatic Cholera. On the other hand, the organism of Cholera Nostra is quite inert with nitrates. Considering the very strong action of nitrites on the system, the presence of such reducing organisms as B. intestini may be of considerable importance in disease.

IV. Nitrification—that is, the formation of nitrites from ammonium salts. Great importance is attached to this action in agriculture; and in soil there is undoubtedly an organism capable of producing the change, and necessary to bring it about. Yet not one of the species

tested in the present research had any appreciable power in this direction, although small portions of arable soil placed in the solutions which were being used induced the change at once. "An organism," says the author, "which nitrifies as soil nitrifies, has yet to be isolated."

H.

## AN ANATOMIST'S ADDRESS TO HIS ADORED ONE.

I list, as thy heart and ascending aorta
Their volumes of valvular harmony pour;
And my soul from their muscular music has caught a
New life 'midst its dead anatomical lore.

O rare is the sound of thy ventricles' throb,
In a symphony, measured and slow;
When the auricles answer with rhythmical sob,
As they murmur a melody wondrously low!

O! thy cornea, love, has the radiant light
Of the sparkle that laughs in the icicle's sheen;
And thy crystalline lens, like a diamond bright,
Through the quivering flame of thine iris is seen.

And thy retina, spreading its lustre of pearl,
Like the far away nebula, distantly gleams
From a vault of brown cellular mirrors that hurl
From their hexagon angles the silvery beams.

Ah! the glance of those orbs is enslaving me still,
As they roll 'neath the palpebral, dimly translucent,
Obeying in silence the magical will
Of the Oculi Motor, Pathetic, Abducent.

O sweet is thy voice as it sighingly swells
From the daintily quivering chordæ vocales,
Or rings in clear tones through the echoing cells
Of the Antrum, th'Ethmoid, and Sinus Frontales.

And that dear little hand, with its taper phalanges,
And its radial's delicate, regular motion—
May our pulses beat synchronous, love, through life's changes,
Unaffected by anger or febrile commotion.

## REST AND PAIN.

*(Concluded.)*

"Supposing" (and here I quote from a volume of essays called "Three-corned Essays"), "supposing we have a human being falling to pieces—he is at low-water mark, he is used up—the question arises, How are we to deal with this inert heap of humanity and to knead it into shape once more? How are you to make him well, and to give the first principle of all medicine, *to keep him well?* We want to make a new man of him, to set him on his legs again—in short, to re-create him; and it is this "recreation" which is so valuable, nay, indispensable, for the maintenance of health. Its whole significance lies in its rest-giving properties, and in its counteracting, by means of the very change of employment it entails, the morbid tendencies of severe application to any business or study. It is the proper blending of work with play, the even and healthy balancing of study by recreation that produces and keeps that smooth and frictionless working of the vital machinery which we call health. The nautch girls in Arnold's "Light of Asia" have a song whose refrain is—

"The string o'er stretched breaks and the music flies,
The string o'er slack is dumb and the music dies—
Tune *us* the zither neither high nor low."

Just so with our "little life"—we don't want stringing up into a sort of tingling tension, while, on the other hand, we must avoid the limpness of a sodden filter paper; and perfect health and happiness lie in the medium. The true philosophy of life is—

"To tune the zither neither low nor high."

I wish to add a word or two more on the subject of pain, with which we began; but not now as a means of diagnosis—that is the surgeon's sphere. There is a second point of view from which to contemplate it—and that is, the patient's. To quote again from "Pilocereus Senilis"—

"The *suffering* the *patient* knows;
The physical change the doctor knows; and
The cause God alone knows."

From the sufferer's point of view, the mitigation of pain is all important.

Anything which, in angina pectoris, for example, will ease off the peripheral resistance, which is the cause of the arterial spasm—and thus enable an over-distended ventricle to empty itself of its contents, *must* be of importance.

Sir Henry Thompson, writing of some of the more fatal and painful bladder affections, says:—"In alleviating pain, do not spare opiates, trying any form or all forms in turn, until you find that which most assuages it and least disturbs the digestive organs. It is not a question of saving life—but one of mitigating that most frightful of human miseries, prolonged and continuous bodily suffering; and this for a patient whose doom is certain, and to whom life has come to be for the most part a dire calamity. Jealously guard life, but remember that you are responsible for the endurability of it."

It seems to me that physical and mental pain are the direct cause of all trouble in this world. We inherit suffering and pass it onwards. It is, in truth, a heritage of woe and a melancholy birthright. Lawyers say that there hardly exists now in England such a thing as "entail"—the law on this subject being now almost useless, there being no need of it. Would that we could follow this lead, and cut the entail which binds to us so miserable a legacy and transmit to our descendants freedom from that most terrible enemy to all human happiness—*suffering* in its protean aspects.

# Passim.

In another column will be found the list of those who have passed the recent examination for the M.B., Lond. The percentage of passes is large, 16 having passed out of 22 who went up, and we hope that the percentage will be even higher for the B.S.

The Honours examinations are now on, and we hope that Guy's will keep up its old reputation and be conspicuous both as to the number who appear in the Honours list and the number of medals and scholarships that are won.

The number of candidates for the pass examination was 103, the number of passes being 71, forty of whom were in the first division.

The subject for the Physical to-night is "The Dangers of Childbed." The paper will be read by Mr. F. Vickars.

In another column will be found a letter proposing the formation of a Guy's London University Club. We hope that the matter will be warmly taken up by both past and present Guy's London University men, and that in a very short time it will be no longer a proposal but an established fact.

We much regret that owing to want of space last week we were compelled to omit a paper by Dr. Yates, of Bolton, upon a case of Carcinoma of the Gall Bladder. This has since appeared in the *Lancet*, and we strongly recommend our readers to peruse it.

We have received from Dr. May copies of two papers upon Diphtheria which appeared in the *Lancet* of November 11th, 1880, and in the same journal in August, 1887, in which he advances his views upon the treatment of this disease. We advise those who are interested in the subject to refer to them, as Dr. May has evidently bestowed great time and attention to the subject, and has there collected the results obtained by him in a considerable number of cases.

## LIST OF NEW APPOINTMENTS

Made by the Council on November 20th, 1888.

*Obstetric Residents.*—E. Moss, December; A. Parkin, January; H. E. Cuff, February.

*Surgeons' Dressers.*—

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|---|---|
| J. S. Richards, C. Price-Jones | Mr. Durham. |
| F. S. Wood, W. J. Scott ... | Mr. Howse. |
| T. Wilson Smith ... ... | Mr. Davies-Colley. |
| F. W. Hall ... ... ... | Mr. Lucas. |

*Clinical Assistants.*—H. V. Hickman, R. G. P. Lansdown, A. D. Fripp, J. McGill, S. W. McIlwaine, J. E. F. Hosking.

*Dressers in the Eye Wards.*—G. L. Kemp, T. S. Coombe (Mr. Higgens); W. G. Beyts, R. A Sawyer (Mr. Brailey).

*Post-Mortem Clerks.*—H. H. Van Leent, R. D. Mothersole, January and February.

*Aural Surgeon's Dresser.*—C. D. H. Rygate, January and February.

*Dental Surgeon's Dressers.*—A. L. Morris, December and January; W. F. A. Clowes, January and February; J. W. Smith, February and March.

*Assistant Physicians' Clerks*—

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|---|---|
| J. W. Smith ... ... ... | Monday. |
| H. P. O. Manning ... ... | Tuesday. |
| V. J. Hodgson ... ... ... | Wednesday. |
| C. H. D. Ralph ... ... ... | Friday. |

*Obstetric Ward Clerks.*—A. B. Hudson, F. W. Pearce, Homersham Cox.

*Medical Ward Clerks.*—G. F. Beresford, E. M. Dobinson, A. R. Lacy, H. B. Rygate, W. W. Wingate, W. E. S. Cobb, G. W. B. Featherstone, G. H. Knapp, W. D. Spurrell, B. W. Hogarth, F. H. Brown, W. Winslow, E. M. Pilcher, C. R. A. Sutton.

*Assistant Surgeons' Dressers.*—E. H. Greaves, F. E. Williams (Mr. Golding Bird), J. Fawcett, J. H. Bryant (Mr. Jacobson), C. Spurrell, W. Carling (Mr. Symonds), H. W. John, F. G. Swayne (Mr. Lane).

*Dressers in the Surgery.*—G. S. O. Howes, J. Young, A. Thomas, E. M. Rooke, H. W. Webber, A. S. Wohlman, F. Wellford, A. Matheson.

*Surgical Ward Clerks.*—G. Cornish, F. A. Osborn, H. G. Biddle, W. A. Higgs, F. D. Lumley, D. W. Samways, A. H. Meadows, H. Hodgson, G. T. S. Sichel, E. G. March, G. Pinder.

*Assistant Surgeons' Clerks.*—F. G. Vicars (Mr. Jacobson); W. T. B. Donnelly, E. G. Evans (Mr. Lane).

We notice that the list announcing the vacancies is posted in the colonnade, and that applications are received at the Medical Office up to twelve o'clock on Monday, 26th inst.

# Correspondence.

*To the Editor of* GUY'S HOSPITAL GAZETTE.

DEAR SIR,—It has been suggested by several Members of the London University that a club be formed on the same lines as the present Guy's Oxford and Cambridge Club. With the idea of furthering the formation of such a club, we shall be glad to receive the names of those who approve the suggestion, so that a meeting may be called, and the details decided upon.

H. J. CAMPBELL, *House Physician.*
A. E. PRICE, *House Surgeon.*

# Hospital News.

INTERESTING CASES.

DORCAS.
Cot. Intubation.

LYDIA.
1. Uterine tumour.

MARTHA.
2. Facial paralysis.
5. Tumours of breasts.
7. Loose cartilage in knee.
11. Curved spine.
Knock knee.

CHARITY.
1. Hydronephrosis.

LUKE.
2. Caries tibia.
5. Aneurism.

NAAMAN.
2. Tumour of tongue.

JOB.
9. ?
21. Tumour of sup. maxilla.

CORNELIUS.
16. Pen in bronchus.
15. Fractured spine.

# Green Extracts.

FOSTER'S PHYSIOLOGY (5th Edition, 1888).

Happy is the man who can look upon the Int. M.B. or any other primary exam. as a thing of the past. The advent of a 3 vol. 5th Ed. Foster's Physiology to him is a matter of little interest, unless perchance he takes a delight in adorning his room with shelves of scientific or literary works, in which case having no hard necessity for the acquirement of physiological knowledge, he may delight himself in post-prandial periods of rest by unravelling some of the intricate paragraphs which set forth in fine and circumlocutory sentences the doubts and contradictions which are an integral part of the subject. But far otherwise is it to the man who has still all his exams. before him. To such a one the appearance of this work is a matter of much interest, especially since this edition is a great improvement on the preceding ones, both in the large introduction of new matter and in its more elaborate explanations. The first vol., now published, treats of the Blood, the Tissues of Movement, and the Vascular Mechanism, and has been increased by about p.p. 120. Chiefly noticeable among these additions are a number of new illustrations, and several histological sections. No one could accuse Foster of being mere "paste and scissors," on the contrary, if anything he is too diffuse, surrounding a fact with such a mass of verbiage as renders it sometimes difficult to grasp his meaning. In some paragraphs our author carefully avoids making any "dogmatic statement," preferring rather to carry the student on from page to page leaving him finally stranded with the remark that "our knowledge is not yet sufficiently ripe to allow exact statements to be made." Other faults of style may he noted, for instance, in treating of Plasminic Fibrinogen, the depressor n., etc., we are given all the characteristics and properties of the substances and the results of stimulating the nerve in various ways before any name has been given with which we may associate all the facts we have just been reading.

Nevertheless, it is a book which will amply repay whoever is wise enough to begin its study a sufficiently long time before his examination; for the subject, though interesting, is difficult, and the compilation of the book requires careful reading, together with an elaborate system of note-taking.

The following is a resumé of the chief new matter introduced into this edition. It will, I hope, be interesting to those who have the third or fourth edition, and will be sufficient to indicate the general scope of the work.

If a small quantity of a solution of a peculiar proteid, prepared from the Thymus body, be injected into the blood vessels of the rabbit, massive clotting of the blood, in almost all the blood vessels, takes place with great rapidity, leading to the sudden death of the animal.

If a solution of albumose be injected into the vessels of a dog to the extent of ·3 gram. per kilo. of body weight, blood, shed within several hours of the injection, will refuse to clot of itself, and remain quite fluid.

The following physical facts are introduced, the "current" being more fully explained than in earlier editions.

The fourth edition states that the development of the secondary current is instantaneous on the "making" of the primary current. This is now corrected.

The direction of the current in the making shock is opposed to that of the primary current. The current of the breaking shock, on the other hand, flows in the same direction as the primary current. The current, upon its first entrance into each twist of the primary coil, gives rise, in the neighbouring twists of the same coil, to a

momentary induced current, having a direction opposite to its own, and therefore tending to weaken itself.

It is not until this self-induction has passed off that the current in the primary coil is established in its full strength. Hence the induced current in the secondary coil is developed more slowly than it would be were no such "self-induction" present. When the current is broken there is no such delay to its disappearance, and, consequently, the induced current in the secondary coil is developed with unimpeded rapidity. Hence the making shock, where rapidity of production is interfered with by the self-induction of the primary coil, is less effective as a stimulus than the breaking shock, whose development is not thus interfered with.

Such muscles as are red contain a small quantity of hæmoglobin, and of another allied pigment—histohæmatin—to which pigment their redness is due.

Whichever view be taken of the nature of muscle currents, and of the electric change during contraction, whether we regard that change as a "negative variation" or as a "current of action," it is important to remember that it takes place entirely during the latent period.

When an ascending current is passed along a nerve going to a muscle, the region between the electrodes and the muscle is thrown into anelectrotonus, and its irritability is diminished. If the current be of adequate strength, the irritability may be so much lessened, that nervous impulses cannot be generated in that part of the nerve, or cannot pass along it. Hence, by this means, the irregular contraction of muscles known as "cramp" may be abolished similarly by bringing into a condition of anelectrotonus a portion of a sensory nerve in which violent impulses are being generated, giving rise in the central nervous system to sensations of pain; the impulses are toned down, or wholly abolished, and the pain ceases. So, on the other hand, we may at pleasure heighten the irritability of a part by throwing it into katelectrotonus.

When a tube is introduced into the carotid, and connected with a manometer, the pressure indicated is not the lateral pressure of the carotid itself, but the lateral pressure of the aorta at the origin of the carotid, modified by the influences exerted by the length of the carotid between its origin and the spot where the tube is introduced.

The ventricular systole probably lasts longer than the discharge of the blood, so that there is a brief period during which the ventricle is empty, but yet contracted. A sufficiently vigorous and rapid stroke of the ventricle being one of the conditions favouring dicrotism—the others being elasticity of arterial wall, and a low mean pressure—its explanation may be introduced here. Upon the sudden cessation of the flow from the ventricle, the expansion of the aorta ceases, and the vessel begins to shrink, this is in part due to the elastic reaction of the aorta, but is increased by the "suction" of the negative pressure produced behind the blood, when its rapid flow is suddenly stopped. The aorta, however, through the inertia of its walls, shrinks too much and consequently begins to expand, this secondary expansion—the dicrotic rise—tends to draw back towards the heart the column of blood, which by loss of momentum has come to rest, or indeed, under the influence of the negative pressure was already undergoing a reflux. The aorta a second time begins to shrink, which may be followed by a further expansion and shrinking giving rise to a post-dicrotic wave.

The closing of the semilunar valves is the effect rather than the cause of the dicrotic wave.

Some held that the primary shrinking, acting on the column of blood already come to rest, in face of the great pressure in front, drives the blood back again against the semi-lunar valves, closing therein; and that the impact of the column of blood against the valves starts the dicrotic wave.

Others hold that the dicrotic is a "reflected" wave. But if this were the case the distance between the primary and dicrotic crest ought to be less in arteries more distant from, than in those nearer to the heart. This is not the case with the dicrotic wave.

The ventricular systole is a simple contraction, not a tetanus, and, therefore, under the old view of the nature of a muscular sound, could not produce such a sound. But reflecting how complex must be the course of the systolic wave of contraction over the twisted fibres of the ventricle, we shall not find great difficulty in supposing that that wave is capable in its progress of producing such repetitions of unequal tensions, as might give rise to a "muscular sound," and consequently in regarding the first sound as mainly so caused. Moreover, the auriculo-venticular valves must be thrown into sudden tension with a rapidity capable of giving rise to vibrations adequate to produce a sound, which, in a normally beating heart, is mingled in some way with the sound of muscular origin, although the ear cannot detect the mixture.

In discussing the beat of the heart Foster inclines to the view which considers the automicity to be due to conditions inherent in the muscles rather than as coming from the influence of the nervous ganglia. He refers to the fact that the nerveless tip of the ventricle in the frog will beat when nourished through a perfusion cannula, and instances the automicity of the ventricle of the tortoise.

The contraction or beat of cardiac muscular fibre is, in its nature, very different from the contraction of voluntary muscle; it cannot be considered a mere instrument in the hands of the motor nerve fibre. The contraction may be studied by taking a slip of tortoise ventricle, consisting of a few fibres, and suspending it, as in a muscle-nerve preparation. The curve of contraction has a long latent period (in Frog., 3 Sec.). A slow, long-continued rise, and a slow, long-continued fall, and is more like that of a plain fibre than of a skeletal muscular fibre. The intact ventricle at rest is isoelectric; but each part, just as it is about to enter into a state of contraction, becomes negative towards the rest.

The whole beat may be considered to be a wave of contraction sweeping through the heart.

When we stimulate a skeletal muscle, the contraction is proportional to the stimulus, within certain limits. But with the heart, when we apply a strong induction shock, we get a beat; when we apply a weak shock, we get either no beat at all, or quite as strong a beat as with the stronger stimulus. The magnitude of the beat depends on the condition of the ventricle, and not on the magnitude of the stimulus.

When a ventricle is beating rhythmically, the effect produced by a new stimulus thrown in will depend upon the phase of the cycle of the beat at which it is thrown in. When relaxation is taking place, there results a premature beat, caused by the stimulus. When a contraction is beginning no premature beat follows; the ventricle does not seem to feel the stimulus at all. The period during which the ventricle is unanswerable to stimuli, however strong, is called the "refractory" period; hence the number of beats do not correspond to the number of stimuli, for some failing in the refractory periods are ineffective. Hence also it is difficult, if not impossible, to produce a real tetanus of the ventricle. The beat is not the result of rhythmic impulses proceeding from the cells of the ganglia, but is the result of changes taking place in the muscular tissue itself. One attribute of undifferentiated primordial protoplasm is the power of spontaneous movement. The cellular constitution and protoplasmic features, including the obscurity of striation of cardiac muscle, shew that the differentiation is incomplete.

It is the muscular tissue which is primarily concerned in maintaining the sequence of sinus beat, auricular beat, ventricular beat. If the auricle be cut through till only a narrow bridge of muscle remains, or if this part be compressed with a clamp, every second or third beat only, of sinus and auricle or followed by a beat of the ventricle; if the bridge be still further narrowed, or the clamp screwed tighter, the ventricle does not at all follow the sequence of sinus and auricle, though it may set up a rhythm of its own.

The beat begins in the sinus, including the ends of the veins, for it has a greater potentiality of beating, which is inborn, and by itself beats more rapidly and with a quicker rhythm than the other parts. The wave reaching the auricle starts a contraction in that segment of the heart. This reaching the ventricle starts its beat, which in like manner starts the beat of the bulbus.

The contraction wave does not spread as a continuous wave over the whole heart, for the muscular rings connecting the parts of the heart seem to be of a different nature from the muscular tissue forming the walls of the cavities; for if this tissue has a low conducting power, its resistance to the progress of the contraction may permit the sinus to carry out, or to be far on its beat, before the auricle begins its beat, and yet not prevent the contraction wave passing on to the auricle. We may, in the tortoise, by clamping, or by section of the auricle bisect the simple auricular beat into two beats. We may thus consider the breaking up of the primitive unbroken peristaltic wave, to be due to the lower conducting power at the junction of the several parts.

C. F. WAKEFIELD.

*(To be continued.)*

# Sport.

## GUY'S HOSPITAL CRICKET CLUB.

A general meeting of the Cricket Club was held on Thursday, November 1st—A. E. Durham, Esq., F.R.C.S., being in the chair. The following business was decided.

1. The general balance sheet. This was found to be in a very satisfactory condition, there being over £2 in hand. The only drawback was, that the greater amount of the money had been supplied by the staff.

2. The balance sheet of the Cup Fund; as given below.

3. Resignation of the past officers.

4. Election of the coming officers.

The winners of the prizes were announced:—*The average Bat*, to Mr. F. Colclough, average 51·4; *the Ball*, to Mr. E. J. D. Mitchell for the most wickets; and a *special prize* to Mr. J. C. Shenton for his scores of 172 and 149 not out in the Cup ties against University College in the second round and against St. Bartholomew's in the final.

It was decided that the offices of Vice-Captain and Secretary of the first and second teams should be in each case held by one person. The following were elected as officers for the ensuing season:—Mr. Durham was unanimously re-elected *President*, and F. Colclough *Captain*. *Vice-Captain and Secretary*, H. Austen Smith. *Treasurer*, W. G. Scott. Second Eleven—*Captain*, G. Wilks. *Vice-Captain and Secretary*, H. W. Webber.

The following were elected on the Committee:—Fifth Year: A. D. Fripp, F. M. Russell. Fourth Year: G. Featherstone, E. J. D. Mitchell. Third Year: T. S. Jackson, J. H. Busteed. Second Year: T. H. B. Yorath, A. Ellis Durham. First Year: J. H. Bettington, — Layman.

The following matches have been arranged:—

| | | | |
|---|---|---|---|
| May | 4 | Saturday | Beckenham. |
| „ | 6 | Monday | Surrey Colts. |
| „ | 11 | „ | Crystal Palace. |
| „ | 18 | „ | Norwood. |
| „ | 22 | Wednesday | Christ's College, Finchley commencing two o'clock. |
| June | 4 | Tuesday | Blackheath. |
| „ | 15 | Saturday | The Philberds. |
| July | 6 | „ | Brentwood. |

There are still some dates open to be filled up.

## CRICKET CHALLENGE CUP FUND.

RECEIVED.

| | | | |
|---|---|---|---|
| By Book A (audited by A. C. Roberts). | | | |
| 33 half-crowns | £4 | 2 | 6 |
| 1 of five guineas | 5 | 5 | 0 |
| 1 of three guineas | 3 | 3 | 0 |
| 1 of two guineas | 2 | 2 | 0 |
| 2 of half-guinea | 1 | 1 | 0 |
| 1 of ten shillings | 0 | 10 | 0 |
| 1 of five shillings | 0 | 5 | 0 |
| | £16 | 8 | 6 |

| | | | |
|---|---|---|---|
| Brought forward | | | £16 8 6 |
| By Book B (audited by A. Allport). | | | |
| 88 half-crowns ... ... ... | £11 | 0 0 | |
| 2 of one guinea ... ... ... | 2 | 2 0 | |
| 1 of two guineas ... ... ... | 2 | 2 0 | |
| 4 of half-guinea ... ... ... | 2 | 2 0 | |
| 3 of half-sovereign... ... ... | 1 | 10 0 | |
| | | | £18 16 0 |
| Per F. M. Russell, 8 subscriptions ... ... | | | 1 0 0 |
| Per W. J. Scott, 2 subscriptions ... ... | | | 1 10 0 |
| The Rooms ... ... ... ... ... ... ... | | | 1 1 0 |
| | | | £38 15 6 |

EXPENDITURE.

| | |
|---|---|
| Cost of Cup ... ... ... ... ... ... ... | £33 6 8 |
| Cost of Inscription ... ... ... ... ... | 3 3 0 |
| Miscellaneous Expenses ... ... ... .. | 0 5 0 |
| | £36 14 8 |

| | | | |
|---|---|---|---|
| | £38 | 15 | 6 |
| | 36 | 14 | 8 |
| Balance ... ... | £ 2 | 0 | 10 |

Frank Colclough, Oct. 23, 1888.

Audited by A. Allport and Astley C. Roberts.

Audited and found correct,

A. ALLPORT.

October 30, 1888.

## FOOTBALL.

### GUY'S HOSPITAL 2ND XI. v. CLAPHAM ROVERS 2ND XI.

This match was decided on Wandsworth Common on November 20th, in our favour by five goals to *nil*. The forward division played well together from the first. Mumford was the first to score, by a splendid long shot from the left wing; and Jones and Kirkby added two more goals in the first half. In the second half Steele and Hazell each scored once. Besides the abovenamed, Pendred at half-back, and Bradley at back, worked hard, and Jewell saved his charge in fine style on more than one occasion. We played one short. Guy's team: —W. H. Jewell, goal; O. J. Bradley, H. W. Webber, backs; T. D. Manning, F. Hazell, V. Pendred, half-backs; W. G. Mumford, R. C. Kirkby, left; W. K. Steele, A. Jones, right.

### GUY'S HOSPITAL 2ND XI. v. CAMBERWELL SCHOOL.

This match was played at North Dulwich, and resulted in a draw, both teams scoring twice. In the first half, T. S. Jackson got the first goal from a loose scrimmage. Camberwell scored twice in the second half, but about five minutes before time T. S. Jackson equalised by taking a pass from the left wing and putting the ball through. We were represented by—F. Hazell, goal; R. L. Wason, H. W. Webber, back; W. J. Johnson, W. K. Steele, R. C. Kirkby, half-backs; W. G. Mumford, F. Colclough, left; F. S. Jackson, centre; A. Jones, H. Harding, right.

### BRADFORD v. GUY'S.

Punctually to time, the omnibus, which was to convey us to St. Pancras, arrived at the Hospital. After a short delay, we started, amidst cheers and good wishes from a large number of Guyites, who had assembled to witness the departure of the Rugby team to Bradford.

Thirty minutes' ride landed us safely at St. Paneras. After having refreshed ourselves with "Bovril," we took our seats in a very comfortable saloon, and prepared for the five hours' journey northward.

At Bradford we found Percy Robertshaw, F. F. Ritchie, and several others, waiting to welcome and pilot us to the "Talbot Hotel," which we made our headquarters.

Saturday morning was beautifully fine, and at 2.30 a four-in-hand was ready to convey us to the Park Avenue enclosure, where a large crowd, estimated at 8,000, had assembled to witness the match.

At 3.10, the Guy's men, headed by their captain, entered the field, immediately followed by their formidable opponents.

Allport kicked off, and the ball, being feebly returned, the first scrimmage was in the Bradford twenty-five; but Ritchie and Atkinson, by good kicks, speedily transferred the game to our territory, and a good drop by Ritchie caused Wallis to touch down. After the kick out the play was chiefly in our twenty-five, and an infringement of the off-side rule gave Bradford a free kick, Jowett's attempt at goal only just going under the cross-bar.

A good dribble by Swayne transferred the play to the Bradford twenty-five, where for a time we fairly penned our opponents, Guy's forwards having the best of several tough scrimmages. At length Robertshaw got possesion and made a good run, but, passing out to Ritchie, he missed the ball, giving Prime a splendid opening, which he failed to take advantage of; but Steele rushed up and prevented any loss of ground by promptly kicking into touch. From the throw in Jowett obtained possession, and some good passing between Jowett, Wright, and Robertshaw resulted in the last-named making a good drop into our twenty-five. Wallis failed to return; a scrimmage was formed, some loose play again forcing Guy's to touch down.

Good play by Ritchie placed our lines in danger, but was counterbalanced by a clever dodgy run by Bettington. From a scrimmage, Wright obtained possession, passing out quickly to Robertshaw, who made a good kick, and promptly following up, was on to Prime before he could return it, the ball going into touch near Guy's goal line. From the throw in Jowett secured the ball, and forced his way over our line. Doyle made an excellent attempt, which only just missed the mark.

Robertshaw returned from the kick out. Mitchell replied with a splendid run right through the Bradford

team, but unfortunately slipped just as he had passed the full back, who collared him before he could regain his feet. This magnificent run was enthusiastically cheered by the Bradford crowd.

Wallis, who had not been playing in his usual form, again muffed the ball, "dead ball" resounding from all quarters; a scrimmage was formed from which Wright secured the ball, and some fine passing between himself, Robertshaw, and Rithie, enabled the latter to score another try for Bradford. Doyle again failed at the place kick. Even play followed, when from a good tight scrimmage in the centre of the ground, Smith got hold of the ball passed well out to P. Robertshaw. He transferred to Ritchie, who made a splendid run to our twenty-five. Prime attempting to collar him was carried some distance, a feat which caused much merriment to the "Yorkshire Lads." Mitchell came to the rescue, and released "Joey" from his exalted position. Some grand forward play followed, scrimmage after scrimmage being formed on our goal line; the place kick, an easy one, was not improved upon by Doyle.

Mitchell, having met with an injury to his shoulder, a short delay was necessary, but fortunately he soon recovered sufficiently to resume. After one or two free kicks to Bradford for infringing the new rules, Pantin being the chief offender, half-time arrived with the score standing Bradford three tries to nil.

On resuming, Jowett kicked off, but Mitchell getting the ball made another splendid run to the centre of the ground before being brought down by Doyle. Several good scrims were formed, which evoked hearty cheers from the impartial crowd. Critchley, from a pass by Wright, made a fast run down the right, but was splendidly collared by Mitchell—who was playing a really wonderful game—his brilliant running and accurate kicking bringing forth many a well-earned cheer from the Yorkshire throng.

A strong rush by Jowett, Atkinson and Potter, carried the fray into our twenty-five, but the threatened danger was averted by some clever play on the part of Bettington. Fawcett now broke away, and being well backed up by Biggs, Swayne and Allport, carried the ball into the home twenty-five. Pantin again "knocked on," giving Bradford a free kick, which relieved their lines, and for a time they were the aggressors, but Bryant, picking up smartly from a scrimmage, made a magnificent run right through the opposing forwards and a try seemed certain, but he spoilt his chance by widely passing. Robertshaw, getting possession, made a splendid drop which compelled us again to touch down.

For a time we were severely pressed until good kicks by Mitchell and Bryant, aided by a useful run from Steele, transferred the game to neutral ground. Some good forward play, in which Allport, Instone and Swayne were conspicuous, carried the ball into the Bradford quarters, a drop by Mitchell forcing them to touch down. Directly after, Nisbett infringed the off side rule, the penalty forcing us to do the same.

Our forwards, especially Nisbett and Biggs, now made a determined effort to score, the latter getting very close, being well tackled by Ritchie, tried to pass, but Doyle intercepted, and, by a good kick, transferred hostilities to the centre. But Guy's were not to be denied, and again Bryant dashed right through the Bradford forwards, but being collared by Critchley, passed out to Prime, who failed to hold the ball; but Steele, who was backing up, secured it, and was only just stopped in time, being well tackled on the line by Wright. Some good passing between our forwards enabled Fawcett to obtain our first try amidst tremendous cheering. Mitchell made a splendid attempt from a difficult place, but could not quite land a goal.

Equal play followed the kick out till Pantin again offended, giving our adversaries another free kick, which they so utilised as to transfer the game to our twenty-five, where Robertshaw made a feeble attempt to drop a goal. Steele stopped a dangerous rush by Potter and Atkinson. Free kicks to both sides followed without any further danger; the whistle sounded, and, after a very fast and pleasant game, Guy's were defeated by the narrow margin of three tries to one.

Our forwards all played remarkably well, and to them is greatly due the smallness of the Bradford score. Bryant and Steele at half were excellent, both tackling in first rate style, we should like to see them play more into each other's hand, and get the ball out more quickly to the centre three-quarter.

Too much praise cannot be given to Mitchell, his play from beginning to end being simply magnificent. Bettington showed up to advantage, taking his passes much better than usual, but still has something to learn in this direction, losing more than one opportunity from this defect. Prime was decidedly "off colour," but perhaps the long railway journey affected him. Wallace began rather feebly, but, as the game proceeded, fully atoned for previous shortcomings by some really first-class defence, his kicking and tackling at times being brilliant and clever.

After the match, Bradford entertained us to a sumptuous dinner; the usual toasts followed. The Chairman, in proposing the health of Guy's, expressed a wish that the fixture might be an annual affair.

TEAMS.

BRADFORD.—*Back*, E. Doyle. *Three-quarter backs*, E. Critchley, P. Robertshaw and R. T. Ritchie. *Half backs*, J. Wright (captain) and R. Smith. *Forwards*, W. Jowett, R. Fisher, J. Potter, G. Oates, J. Crossley, G. Moore, M. Holmes, H. Moulding and T. Atkinson.

GUY'S.—*Back*, S. S. Wallis. *Three-quarter backs*, W. G. Mitchell, C. J. Prime and J. H. Bettington. *Half backs*, J. H. Bryant and H. G. Steele. *Forwards*, A. Allport, J. H. Muncaster, N. Instone, F. G. Swayne, J. J. Biggs, J. Fawcett, J. Nisbett, H. B. Rygate and G. S. Pantin.

Guy's Hospital Gazette,

*DECEMBER 8, 1888.*

## NOTES ON A CLINICAL LECTURE

By Dr. Pye-Smith.

### INTUSSUSCEPTION.

Mary B., aged 6 months, admitted 11 p.m., November 27, with following history: At 11 a.m. that day passed a small motion with straining. At 5 p.m. suddenly seized with pain and vomiting. A little blood from bowel.

*On admission:* did not appear very ill. Bleeding from rectum. Small mass felt in left iliac fossa. Mass felt by finger in the rectum, with dimple in the centre. Vomiting and constipation continues. On November 28, inflation by bellows. Repeated next day. Appeared to be reduced. Next day a little fæcal matter came away. Sickness stopped. Child gradually got weaker and died November 30. Temperature went up to 104.

*Post Mortem:* Ileo-cæcal valve, cæcum, and 2 or 3 inches of ascending colon inflamed. Complete reduction. Whole of large intestine in its normal position. Fæcal matter in cæcum and ascending colon. Descending colon contracted.

Dr. Pye-Smith remarked that this was a typical case, and a not unfrequent termination of Intussusception. Common in children. The mass felt in the return was distinguished from a polypus by a dimple in the centre.

Inflation to be preferred to injection of water. This should be done with a soft large tube, very gently, escape of air being prevented. By placing the hand on the abdomen, it will be felt to distend, showing that air enters properly. Then plug the anus. Tinct. opii. ℥ss. may be given to child 6 months old and repeated.

*Varieties of Obstruction.*

*a.* Impaction. This is the simplest and mildest form. Often found in women and old men; seldom in young men; never in children. No sharp line can be drawn between this and constipation.

*b.* Stricture of rectum.

In these two forms there is more obstruction, no interference with the circulation.

*c.* Strangulated hernia, acute strangulation by bands, volvulus, &c.

*d.* Invagination. In this case the obstruction is caused by the swelling consequent on venous stoppage, and does not come on immediately. Most common in male children. Invagination of ileum into cæcum usually (not *through* the valve, which forms the lowest part). Small intestines next in frequency; then large intestine; lastly rectum (extremely rare).

Symptoms of Invagination:—

1. Note age of patient.
2. Pain, paroxysmal.
3. Vomiting (not constant).
4. Constipation. Not early. Allow 2 or 3 days.
5. Passage of bloody mucus or fæcal matter.
6. Collapse early.
7. Abdominal tumour.
8. Make rectal examination.

Complications—Peritonitis: Sloughing. (Recovery has been known to take place after passage of 20 in. of slough.)

*Treatment.*—Try to reduce by inflation. Repeat if necessary. Give Tinct. Opii. ℥ss every hour or two to prevent return (for child). Do not feed. Brandy ℥x every hour if necessary. If unsuccessful, abdominal section must be considered. Risk enormous, but may be sometimes justifiable.

In *chronic constipation* try enemata. Avoid laxatives and opium. Give belladonna gr. i. every hour.

In *stricture* give enemata, belladonna, opium, no solid food. Avoid laxatives. Find seat if possible (probably cancer) between anus and splenic flexure. Treatment is colotomy. This prolongs life, and may save it.

In *strangulated hernia* give opium and starve. If seat is known relieve by operation. Exploratory operation is unsatisfactory.

## HYDATID OF SPLEEN—MULTIPLE ABSCESSES OF LIVER AND LUNG—RECURRENT JAUNDICE & PYREXIA—EXPLORATION—DEATH.

Through the kindness of Dr. F. Taylor I have been allowed to publish the following case:

A. W., æt. 26, married, was admitted for recurrent jaundice and pain in hepatic region.

*Personal Medical History.*—For the last 2½ years patient has lived in Paris. No children. Rheumatic fever when 19 years old. Otherwise very healthy.

*History of Present Illness.*—While in Paris, in April, 1888, got a bad fright, and within an hour was completely jaundiced. Lasted 4 weeks.

On August 16th. Similar attack—sudden—no cause known. Lasted till August 29th.

September 4th. Similar attack. Lasted 4 days.

22nd. Again jaundiced, and this attack lasted till day of admission (October 2nd).

Pain first felt in epigastrium, but in last attack was referred to right shoulder and hypochondrium. During attacks patient vomited everything she took, and since September 29th had a dry hacking cough.

*On admission.*—Patient was slightly jaundiced, apthæ all over mucous membrane of buccal, faucial and palatal regions.

She was very anæmic and looked very ill.

*Liver dulness* began in 4th right space in front, the 7th in axillary line, and the 8th space behind and extended for 1½ inches below the edge of the ribs. There was also pain on pressure over the surface of the liver and also on taking a deep inspiration.

*Spleen dulness,* normal. No ascites. Temperature 98°. Pulse 72, small, regular and easily compressible.

*Respiratory system*—Few small râles at right base behind, otherwise normal.

*Urine,* normal.

Patient was given an expectorant mixture, and farinaceous diet with broth and beef tea.

Oct. 6th. Four days after admission, patient had severe pain in right side.

7th. Loud rub at right base. Temperature 102·4°. Pulse 120. Respiration 40.

From this time patient had very acute pain in right side shooting up to the shoulders, and supplementary breathing at both apices.

15th. Patient lost pain in side. Rub still audible. Temperature still up to about 102° in the evening. Pulse and Respiration as before.

20th. Patient looked very much more ill again. Some pain in right side again. Vomited slightly this morning. Nothing found microscopically.

22nd. Some tenderness, though very slight, on deep pressure under left 12th rib; much more pain on pressure over corresponding position on right side.

23rd. Temperature went up to 103·6° at 2 a.m. Vomited slightly. Looked very ill.

1 p.m. Patient suddenly had a rigor which lasted till 1.45 p.m. She was very cold, sweating profusely, was pulseless with the legs drawn up, respiration very rapid and looked moribund. There was also much accumulation of mucus in the chest. Brandy ℥ fs. o.h. was ordered, and an injection ♏ xx. statim. Ammon. Carb. gr. v. o.h.

5 p.m. Patient better. Liver dulness in front now began at the 5th rib in front and one rib lower behind. Air entering chest freely. Between 1 and 3 p.m. patient had three liquid motions, and in the last there was some pus found by means of microscope. Not otherwise demonstrable. Trace of albumen in urine.

9 p.m. Pulse better. Patient still very pale and breathing rapid, but no obstruction. Dulness extended from liver down nearly to Poupart's

ligament. Tenderness over this below umbilicus. Ordered: 4 nutrient enemata daily. Milk Oiss. Aq. Oiss., by mouth. Brandy ʒ ss. o.h.

24th. Temperature low all day. Respiration 60 per minute. Dulness in abdomen had decreased to half an inch above umbilicus. Some bulging noticed over this below the ribs. Pleuritic rub still audible.

25th. Temperature up again at 2 a.m. to 104°. Breathing 60. Pulse fuller. Motion passed in night contained no pus. Legs still drawn up. Dulness in abdomen again decreased, reaching now to half an inch above umbilicus.

26th. Patient looks very livid and generally worse.

Mr. Symonds aspirated, through the 8th right space, in two directions, viz., antero posteriorly and then downwards, inwards and backwards. In both directions the trocar reached a depth of 4 inches. No pus drawn off.

27th. Patient looked even worse than yesterday. Breathing, more frequent and laboured, 80 per minute. Pulse very small and frequent. Abdomen very painful to pressure and moving very little.

28th. Six motions passed in night and three this morning. The first were clay-coloured, the latter contained some bile. No pus in any. The first were somewhat formed but the last three liquid.

29th. Temperature 104°. Respiration as before. Loud pleuritic rub still audible. Abdomen very tender, seems to be slightly sucked in with inspiration. Dulness in right flank as before.

30th. Very much worse in night. Temperature kept at 104°. Pulse very small indeed. Respiration gradually got less frequent, and at 4.30 a.m. patient died.

*Post-mortem Abstract.*

*Respiratory System.*—Four ozs. of fluid in right pleura. Extensive diaphragmatic pleurisy. Right and left pleurisy of lower lobes. Lungs œdematous and mottled. Some pneumonia at left base. Numerous small abscesses with hæmorrhagic areas around.

*Abdomen.*—Local peritonitis over spleen.

*Liver* reached from 3rd right space to 1 inch below the umbilicus. The left lobe small and shrunken, its right extremity being puckered from shrinkage of an old cavity now quite smooth walled. This contained a little bile-stained mucus, and communicated with the left hepatic duct opening into the dilated common bile duct.

Gall bladder completely occluded by surrounding inflammation, dilated and contained colourless mucus.

On the front of the right lobe was a prominent swelling 3 inches transversely and corresponding to the position of the 5th, 6th and 7th ribs. This was filled with pus and had numerous multilocular abscesses ramifying from it into the substance of the liver.

Numerous other small lobules were to be seen breaking down into abscesses posteriorly.

*Spleen* very much enlarged. Weighed 24 ozs. On inner surface was a projecting dense fibrous capsule, containing 2 ozs. of fluid, and quantities of gelatinous hydatid capsules and cheesy material.

The splenic flexure of the colon covered the anterior aspect of spleen.

The above case was diagnosed before death as most likely one of "suppurating hydatid of the liver," the fact of the colon going in front of the spleen preventing the detection of its enlarged condition during life. And again only once was pain or tenderness noted in that region and that only on deep pressure beneath the ribs. From the sudden collapse of the patient, on October 23rd, it seemed probable that the cyst had opened into a cavity, *e.g.* peritoneum, and the passage of a little pus in the motions, with the increased dulness and bulging in the right flank, was supposed by some to be due to its entrance into the ascending colon. However, as no more pus was passed in later motions, this

was negatived. This amount of pus might be explained by the connection of the left hepatic duct with the old cavity, before mentioned, found post-mortem.

Then again, after this, the signs of peritonitis seemed to show that the pus had entered the peritoneal cavity, but none was found after death.

When patient was admitted she looked very ill, her temperature was, however, normal, and it was not till five days after admission that the temperature rose. From this time, however, till her death, it was of a marked hectic type. From admission the jaundice decreased gradually and at death it was only very slightly marked.

Four days after the sudden collapse, as patient seemed decidedly better, Mr. Symonds was asked to see patient. He thought it advisable to explore, although there was no outward indication as to where to do so, and this was immediately done but with the aforesaid result.

Further exploration was then left till the following day, but as patient was worse again nothing was done. Mr. Symonds thought that the re-introduction of a trocar would be ineffectual and that patient was much too ill to stand a major operation. As was found post-mortem any further operation would have been useless, owing to the multiplicity of the lesion.

Mr. Symons' trocar had, however, penetrated the liver within an inch of the large superficial abscess.

The diaphragmatic pleurisy was quite enough to account for the patient's very rapid breathing.

## GANGRENE OF THE LUNG—RECOVERY.

Mary Ann D——, æt. 33, was admitted to the Bolton Infirmary, on April 2nd, 1888, under the care of Dr. Gillibrand, for cough, with foul expectoration and pain in the left chest.

Patient had been troubled with cough for about three weeks, ten days before admission she first experienced pain in the chest, and had a rigor next day. She then kept her bed, and her temperature rose as high as 103°.

Her father died of phthisis, æt. 26, and her mother, æt 49, cause unknown. Her only brother is living and healthy.

*On admission*, temperature 102°, pulse 140, sweating freely, has constant short cough, with not very copious fluid; frothy expectoration, extremely foul in character; pain and considerable tenderness on palpation all over the left chest in front, and in the region of the scapula behind. Breath sounds on right side harsh, air enters left lung well at back, but not in front except at upper part, where tubular breathing is heard. Base of left lung in front dull. The most tender part of the chest is the left third intercostal space close to the sternum. Heart sounds normal. Urine normal, no albumin. Microscopically the sputum is found to consist of large granular pus and epithelium cells. No broken down lung tissue to be seen; this was found, however, later on. No tubercle bacilli, nor were any found subsequently.

*Treatment.*—Quin. Sulph. gr. iii. and Tr. Ferri Perchlor. ♏ xv. every three hours. Port wine ʒ viii.; beef tea, milk, eggs, &c., Ol. Eucalypt ʒ vj., Tr. Iodi ʒ ii., to be used frequently as an inhalation.

Cough improved somewhat, moist rales were heard at the third left intercostal space. On the 4th great pain was felt in the left shoulder, which was relieved by application of A.B.C. linament. April 6th, cough much more troublesome, expectoration less foul, not free. Ordered Am. Carb. gr. v., Vin Ipecac ♏ v., Tr Opii ♏ v., Syrup Tolutani ʒ ss. Ex. Aq. every four hours. By the 8th the chest was more painful, especially at the third space, and the expectoration copious and extremely fœtid. Inhalation of creosote substituted for that first prescribed. The physical signs persisted unchanged. Evening temperature ranged up to 102°, and to control it, 12 grains of quinine were given every night. 12th, not doing at all well, looks very anæmic and

wasted, cannot take her food, breath sounds above left nipple coarse with moist râles in deep inspiration, tubular breathing at right apex. 13th, distinct signs of a cavity at upper part of left lung, air enters both bases well. Sputum more offensive than ever, and very copious, has vomited frequently lately, as it was thought this might be due to the creosote, to which the patient strongly objected, the inhalation was changed to the original one. Pil. Iodoformi gr. j. ordered. This was stopped two days later, as was the mixture, the cough having almost ceased. Syrup of the phosphate of iron to be taken three times a day. On the 16th, the inhalation was again changed for one containing creosote, carbolic acid, spirits of camphor, and spirits of wine, to be used four times a day. The next day the expectoration was tinged with blood for the first time, it was as fœtid as ever, cough becoming more troublesome. Cough mixture to be continued. Condition varied from day to day. Patient appeared to be going down-hill rapidly. On the 21st râles were audible in both chests, in front the sounds were not distinct on the left side, and the percussion note in the upper part was far from resonant. On the 23rd small crepitations were audible at the left apex at the very end of deep inspiration. 30th.—Turpentine inhalation used, and upper part of both chests painted with iodine liniment. Up to this time the temperature had varied from 99° to 102°, but now it came down to normal, and remained so with slight variations. The sweating which had been pretty constant ceased. The pain too, in the chest and left shoulder diminished, and patient began to pick up, although the expectoration remained free and very offensive. May 10th.—Râles heard in both chests, all breath sounds much louder on the right side, a whistling systolic bruit was heard in the second left intercostal space, probably produced by the resonance clue to the lung cavity. 15th.—Weight 7 stone ; before illness it is said to have been 8st. 7lbs., and 13 years ago she weighed as much as 10st. By the 19th, the expectoration had ceased to be offensive, there was not much of it, and it was slightly rusty in appearance ; no râles to be heard ; cough but slight. From this time she convalesced steadily, the musical bruit persisted, but became much less intense. The inhalation was used up to the second week in June, and she was kept in bed till early in July. On the 17th of that month she was discharged cured, weighing 7st. 12lbs. The apex of the left lung was quite dull then, and no inspiratory murmur could be heard ; there was still a soft systolic bruit audible, but only at one spot in the second intercostal space. At the end of November she described herself as "quite well and getting stout."

Dec. 3rd, 1888. E. C. KINGSFORD.

# Physical Society.

## DISEASES OF THE THYROID BODY.

Abstract of a Paper read before the Physical Society, by Mr. F. W. Hall, November 10th, 1888. *(Continued.)*

*Causes of Goitre.*—No particular influence has been proved to be *per se* a factor in the production of goitre, though a host of causes have been proposed. A goitrous village is usually small, and situated in a valley flanked on the east and west by high mountains, excluding the direct rays of the sun, and but little accessible to winds. Through the village a river probably runs, its water often containing a large proportion of calcium and magnesium salts. Another important point is, that the village is situated far inland, away from any influence of the sea. There generally seems to be a want of proper hygiene, insufficient food, and the race is often impoverished by continual intermarriage.

*Varieties of Goitre.*—May be divided into 3 chief classes: Simple hypertrophy, cystic, and fibroid enlargements. Virchow has shown that all goitres begin by simple hypertrophy, and as the enlargement progresses, either the vesicles may increase in size by accumulation of their colloid contents producing the cystic form, or the fibrous elements of the gland may increase, forming the hard fibrous variety. Sometimes calcification may occur in large and chronic goitres, as in a case reported by Hutchinson.

*The main Symptoms* of goitre are due to pressure. These symptoms do not occur as commonly in the large

soft pedunculated varieties due to simple hypertrophy, as in the smaller and more solid fibrous tumours closely enveloping the larynx and trachea, pressing upon the great vessels of the neck, and in many cases extending downwards beneath the upper end of the sternum. Pressure symptoms are the following:—

1. Pressure upon veins of neck producing engorgement of face, and, owing to impeded return of blood from brain, drowsiness, headache, and giddiness.

2. Carotids are frequently displaced and compressed, causing diminution of arterial supply to brain with consequent cerebral symptoms, including convulsions.

3. Pressure upon recurrent laryngeal nerve, causing paralysis of abductors of vocal cords.

4. Trachea, either pushed on one side or flattened, transversely or from before backwards with atrophy of the cartilaginous rings; this in one of the commonest causes of dyspnœa. But it may be brought about in two other ways, viz., by paralysis of abductors, or possibly by the mere movement of a large tumour upwards or downwards during respiration.

5. Pain or difficulty in swallowing caused by pressure on œsophagus. In 20 cases in Guy's Hospital since 1880 it has been noted in 9, and in one case under Mr. Symonds the patient had to be fed by a stomach tube.

*Malignant Disease* is rare as a primary affection. In most cases the new growth is a carcinoma, and it is marked by very rapid growth, early symptoms of dyspnœa, and rapid invasion of surrounding structures. It begins by proliferation of the normal parenchymatous cells of the gland. A special form of malignant disease sometimes occurs in which secondary deposits, often pulsating, occur in the bones, especially the cranium. They have also occurred in the liver, kidney, lung, spleen, and choroid. All these secondary growths have the microscopical structure of bronchocele. In malignant tumours of the thyroid little can be done in the way of operative measures, though tracheotomy is often necessary to relieve dyspnœa. This operation presents great difficulties. In one case Mr. Lucas had to cut through four inches of growth to reach the trachea, which was discovered by percussion with the finger-nail. A No. 15 gum-elastic catheter was passed as a tracheotomy tube.

*Methods of Treatment* naturally divide themselves into three classes: (1) Internal remedies; (2) Injections; (3) Operations of partial or complete excision.

I. The only internal remedy which has stood the test of experience is iodine given as iodide of potassium (gr. V—X. t.d.s.) In some cases of simple hypertrophy improvement and rapid cure follow, but in others the effect is only partial, while in dense fibrous goitres there is often no effect at all. It is advisable to combine iodine inunction with the internal treatment.

II. Injection of iodine gives good prospect of cure in cases where potass. iod. fails. With care evil results do not often occur, but in some cases they have appeared in spite of the greatest caution. They are three:—

1. Thrombosis of veins and right side of heart with sudden death.

2. Injury of pneumogastric or recurrent laryngeal nerve, producing either spasm or paralysis of one of the vocal cords.

3. Suppuration and putrefaction of the goitre.

*Cautions*—(*a*) Beware of injecting the iodine into the large veins.

(*b*) Vary as much as possible the place of injection.

(*c*) Do not pass needle too deeply, and do not direct its point towards trachea or great vessels of the neck.

(*d*) Make the injection very slowly.

One of the best treatments for thyroid cysts is that of Sir Morell Mackenzie. Perchloride of iron (℥ij ad ʒj of water) is injected through a cannula which is plugged and allowed to remain in cyst until suppuration sets in. The canula is then withdrawn and the cavity is drained until it shrinks and heals.

III. *Thyroidectomy.*—Cases demanding excision are generally those in which there is great dyspnœa and other symptoms endangering life. With antiseptic precautions the danger of the operation is very slight, there rarely is much hæmorrhage, and in the most extensive primary union is frequently secured.

*Kocher's Method.*—A median incision is made from upper border of tumour to sternal notch, and this is carried outwards and upwards at its superior limit as far as necessary. If both lobes are to be excised the lateral incision is made also on the opposite side, the whole being thus Y shaped. The enlarged artificial veins should be doubly ligatured and divided. The stretched sterno-hyoid, sterno-thyroid, and omo-hyoid muscles have generally to be divided. The large distended veins around the tumour have to be carefully divided between double ligatures, and the arteries are to be ligatured in a similar way, great care being required not to include the recurrent nerve with the inferior thyroid artery. There may be great hæmorrhage on division of the isthmus if great care be not taken to pick up the bleeding points as they appear.

In view of the myxœdema following the operation it cannot be deemed advisable to remove the whole gland, especially in cases of simple adenomatous enlargement. It seems, too, that if only a very small portion be left it will hypertrophy and prove sufficient to secure against any evil after-effects. Among the most constant effects of the operation is hoarseness of the voice and sometimes complete aphonia, probably due to some injury of the recurrent laryngeal nerve. But in many cases the hoarseness is without doubt due to laryngitis and tracheitis which occur so commonly after the operation.

*Excision of the Isthmus.*—A method rapidly coming into favour and chiefly adopted by Mr. Sydney Jones. The isthmus is exposed by a median incision, generally about three inches long. Double litagures are passed round it at each end, with or without inclusion of the innermost parts of the lateral lobes, and the ligatured part is cut out.

The removal of the isthmus not only lessens tension by allowing the lateral lobes free play and relieving the trachea from pressure, thus preventing dyspnœa, dysphagia, laryngeal cough, and other symptoms, but it also seems to result in actual shrinking of the lateral lobes without, according to Jones, any production of myxœdema.

## Passim.

We are very glad to be able to state that the idea of a London University Club has been warmly taken up, and already a good many names have been received of men who approve the scheme.

It is proposed to hold a preliminary meeting on Wednesday, December 12th, in the Clinical Theatre, at 2.30., at which Dr. Pavy has kindly consented to preside.

At this meeting it is hoped that the lines upon which the Club is to work may be settled, and a Secretary and Committee appointed to carry out the necessary details and to send out circulars to old Guy's London University Men.

An event of great moment, as usual, passed off silently on November 26th, 1888, viz., the first brick of Guy's Hospital Residential College was laid. We hope to be able to give our readers important and interesting information from time to time as to the latest improvements, the construction, progress of work, &c.

We would repeat what was stated in the last number that in order to enhance the value of the Gazette, it is proposed to issue, at least once a month, a photographic reproduction of some interesting Medical or Surgical case, or Pathological specimen, or other special subject. The Editors will therefore be glad to have submitted to them any prints from negatives of suitable cases from old or present Guy's men. The reproductions will be accompanied with short descriptive letterpress.

We are glad to hear that Dr. Meyer, an old Guy's man, has been appointed Professor of Physiology at the Bombay University. Our readers will remember that Dr. Meyer passed first out of Netley two years ago, when three Guy's men headed the list. As the Government have in this case, *mirabile dictu* preferred merit to seniority, it is natural that there should be a little dissatisfaction among the senior men at the appointment—but it would be ridiculous to appoint an older man to lecture on Physiology, a science that changes every five years. We congratulate Dr. Meyer on his appointment, and have no doubt that he will have a prosperous career in Bombay.

The subject of the Physical Paper to-night is "Immunity from Disease." The author is Mr. F. G. Swayne. The subject ought to lead to a lively discussion.

We would remind our readers that the subscription list for patients' dinners, Ward decorations, &c., &c., is now open; and the amounts will be received by any of the Residents, or by the Editors of the Gazette.

## Correspondence.

### SHAMPOOING AS PRACTISED IN JAPAN.

*To the Editor of* Guy's Hospital Gazette.

Sir,—I venture as a Guy's man to address the readers of this Gazette on experiences abroad, and would submit to you Shampooing as practised in Niphon. Shampooing, although of recent date in Europe, is an old custom in Japan. It is a trade or calling solely performed by the blind of both sexes. Not the "three little maids from school," but a poor class of Japanese, who cannot boast of much picturesqueness. Their familiar call is soon known to visitors, for they walk the streets soon after dusk, and blow a melancholy note from a musical whistle similar in a way to the London crumpet man. In Niphon this class of blind folk is very common, and blindness seems to be a national disease among a certain set. The moral tone of the Islands is not good, and this probably has something to do with it. The Japs are not particularly modest, as witnessed in their home surroundings and ablutions. They are naturally gentle, polite to a degree, and clean in habits. Since the introduction of European customs, a great change has been wrought in this artistic country, and there is only one old typical town, Kioto. Many people employ these Shampooers for rheumatism and neuralgia; osteo-arthritic people derive much benefit. Others find it a comfortable lounge, and like it in preference to a Turkish bath. Hysteria, as far as I learnt, was uncommon in

Japan, and it is this affection which has increased the popularity of shampooing among the profession. For one hour a Jap will perform this operation in a complete style, and charges five sens to half a yen (dollar), according to his skill and respectability. These picturesque people are a diminutive race with coarse jet black hair, unhandsome, and with a slight tendency to obliquity of the palpebral openings—not the extreme upward obliquity which is generally depicted in sketches, for that is only the exaggerated mask of the stage. Their beauty is solely confined to the hands, and here we have a pair of organs which Bell probably examined. Similarly, the Chinese also possess this delicate prehensile organ; but the Japanese are proverbially considered to be one of the most artistic races of mankind. In the manipulation of brushes, pens, and carving tools, their skill is amazing. A good surgical operator is known invariably by his hand. It is in detail and minute work that the islanders of Niphon excel.

The Japanese do not recognise perspective, although a picturesque effect is often exhibited, and a talent shown in their paintings. They imitate, but not so completely as the Chinese. Now it is this beautiful hand that makes them such skilled shampooers. We talk about flat feet without elasticity; few who have this kind of foot can dance to the satisfaction of their partners. It is the same with the hands; there are flat hands without a concavity or elasticity. It is the ends of the fingers with the thenar and hypothenar eminences which serve a good draughtsman,—notice how he rests the thenar and hypothenar eminences when using the maul-stick. Likewise in shampooing and in the act of palpation exemplified in the mapping out of abdominal swellings. Some of us will detect and map out irregularities of the liver and intestinal growths more completely than others. Most people can be taught to shampoo, and it is not difficult for the roughest hand to probe for necrosis, or to examine an inflamed knee joint. The patients are the sufferers. In every branch of our profession this Japanese hand is shown to advantage, and is, no doubt in many cases, a development after birth, the outcome of the drawing school. Cæteris paribus and a talent for sketching this must be the result, a typical Japanese hand to the Surgeon—a great boon to his patient.

In the process of shampooing the Japanese go to work in a very systematic and thorough way. The patient reclining, first one upper extremity is manipulated, and then the other, and so on with the lower limbs, and, lastly, the front of the thorax; but the abdomen is not handled unless desired. The process is divided into three parts,—superficial rubbing alternately with the thenar, hypothenar, and bulbous portions of the fingers. Handling and gentle squeezing of the muscles, individually if possible, or in a group; and finally flexion and quiet manipulations of the articulations. All the phalangeal joints are made to snap in a novel way, and flexed into the palms and soles of the feet. This shampooing, lasting one hour, is very pleasurable, and is frequently resorted to by those who like indulgence. Certainly, one feels refreshed and a different being after the operation. —I am, Sir, yours faithfully,

J. F. BRISCOE,

*December 4, 1888.* 25, Trinity Square, S.E.

## PATHOLOGICAL NOTES.

WE promised in a preceding number of the "GAZETTE" to make a few remarks on some of the specimens which have been recently added to Guy's Museum.

1081[55]. *Sarcomata of the Skull.*—This specimen belongs to that group of cases in which sarcomata are found deposited in many parts of the body, and to which the name of sarcomatosis has been applied. They may affect the bones only, or the viscera only, or, what is more usually the case, both bones and viscera. A somewhat similar grouping has been observed in pyæmia. Thus we may have the joints only affected (articular pyæmia), or the viscera only (visceral pyæmia), or both joints and viscera. In this case the new growth seems to have started in the skull, but whether as a subperiosteal or central growth is uncertain. From the large mass of the frontal bone, one would naturally suppose that it had developed in connection with the periosteum, but its structure is unlike that of the majority of subperiosteal sarcomata, as we find them on the long bones, being described as a very vascular round celled growth, whereas the latter are usually comprised of spindle cells. The symmetrical arrangement of the tumour on the inner and outer surfaces of the bone is best explained by considering that the growth began in the centre of the bone, and then spread equally in either direction.

1661[60]. *Melanotic Tumour of the Chest.*—This is a specimen of its kind. Though often called sarcomata, there are good reasons for classifying them with the epithelial new growths. In the first place, the tissues usually affected are the skin and the eye; in the latter, the tumour is generally spoken of as a melanotic sarcoma of the choroid. But there is evidence to show that it may start from the pigmentary layer of the retina, which is developed from the epiblast lining the primary optic vesicle. And there can be little doubt that when primary in the skin, the melanotic tumour develops from the pigmented cells of the rete malpighii, which is also an epiblastic structure. Again, there is abundant clinical evidence that the rapid dissemination of the new growth proceeds by way of the lymphatics to the glands and the internal viscera; thus differing fundamentally from the diffusion of sarcoma Microscopically, these melanotic tumours differ somewhat from the structure of an ordinary carcinoma, but very frequently one can make out an alveolar stroma, containing large round or irregularly-shaped cells. In all our text-books these tumours are classed with the Sarcomata, but in Heath's Dictionary we find this statement: "Most of the melanotic tumours belong to the round-celled variety of the sarcomata, and they are not unfrequently alveolar with respect to their

stroma." There would thus seem a balance of evidence in favour of calling them carcinomata.

1124[50]. *Enchondromata of Finger.*—The chief point of interest in this specimen turns on the development of these new growths from the interior of the shaft of the bone. A section of the middle phalanx shows a nodule of cartilage in the diaphysis, unconnected with articular or epiphysial cartilage, and not producing external enlargement. An association between these tumours and a rickety condition in early life has been traced by several observers. The explanation offered is that during the progress of the rickety changes in the epiphyses, small islands of cartilage become detached, and these in later life form the starting points of cartilaginous tumours.

1519[36A]. *Cured Double Popliteal Aneurysm.* — This specimen is of great interest as it illustrates cure by two methods of treatment, digital compression and ligature. But there is another point of considerable importance, namely, the pervious condition of the femoral artery between the ligature and the aneurysm. Mr. Savory has lately recorded the results of an examination of seventeen specimens of popliteal aneurysm treated by ligature of the femoral artery. In thirteen instances the vessel is patent throughout, and in the remainder it is so to a greater or less extent; with the exception of two, the aneurysm is cured in all. This condition is suggested as an explanation of some of the cases of recurrent pulsation after ligature, the circulation being rapidly established by collateral branches. Such cases have been ultimately cured by ligaturing the vessel lower down, in the popliteal space; and the conclusion drawn is that in many cases of popliteal aneurysm, it would be better to tie the popliteal artery in the first instance rather than the femoral.

1643[60]. *Dermoid Cyst near Knee.* — These cystic tumours are very rarely met with on the lower extremity, but are not uncommon on the fingers. Clinically, they resemble sebaceous cysts, and are filled with similar material; but microscopic examination of the cyst wall shows that it is composed of true skin, with or without hair and glands. Thus may they be distinguished from the ordinary sebaceous cyst. Dermoids are usually situated along the middle line of the fœtus, or in the neighbourhood of fissures, or in connection with the ovary and testis. As examples, we may mention those beneath the tongue, on the front of the sternum, at the outer angle of the orbit, or in the perinæum. They probably result from the inclusion of fœtal tissues during the union of the folds of epiblast at these spots. Such an explanation, however, cannot be applied to those occurring on the extremities. Recently it has been shown that in the latter situation they are often preceded by a definite injury or wound; and in animals they have been known to follow injuries inflicted by the horns of their enemies. It has been ingeniously suggested that small portions of skin may be detached by the injury and thrust into the deeper tissues, where it developes; in fact, it is a kind of transplantation.

## TO THE LADIES WHO VISITED GUY'S HOSPITAL DISSECTING ROOM, NOVEMBER 30TH, 1888.

Did we receive you rudely, all agape,
Beholding, for the first time in our life,
Amidst those satires on the human shape
The ghastly products of the cynic knife,
Fair woman's living eyes?
Remember our surprise,
And grant us pardon! Could we but have dreamed
Such honour was to come, we should have beamed
With welcome; would have held a gay "At Home"
With special features; for instance, tea in crania,
Or such-like items, as might please a mania
A little morbid! (Remembering, "when in Rome,"
To "do as Rome does.")

Did you seek for hearts?
We mostly have none (since *post-mortem* parts,
Unhappily, are now our general fate;
And such, you see, are all eviscerate).
But, was it hearts you sought? One feels temptation
To hint 'twas rather for a new sensation!
*If* you be colleagues, "lady doctors," well,
It *may* be that the times will soon be here
When we'll dissect together; one can never tell;
But, better wait until such times appear!

And, if it be you have no call from duty
To view the scalpel's work; then, in the name of beauty,
Then, in the name of all we love and prize,
Make us no precedent for women's eyes
To see such sights; we fain would have them free
From memories which dim their poetry.

F. G. H.

## NOTES ON PRESCRIPTIONS.

ACONITUM-ACONITE.—(ACONITUM-NAPELLUS.)

The parts used of this plant are the fresh leaves and flowering tops, and the dried root.

The preparations are Extractum from the fresh leaves, Linimentum, Tincture, and Aconitina from the root. There is also Unguentum of the alkaloid.

This drug has been given internally in such painful diseases as gout, rheumatism, neuralgia, cancer, &c. At the present time its use appears to be limited to cases of neuralgia and to control inflammation and reduce accompanying fever in such diseases as acute sore throat, tonsilitis, &c.

It is a very powerful poison, and its depressent action upon the heart renders care necessary in its administration. Externally applied, it is a powerful sedative to painful parts.

*Extractum Aconiti* (dose, gr. ¼ to gr. j.)—A black, solid extract, always prescribed in pill.

℞ Ext. Aconiti, gr. ¼.
Ext. Glycyrrh, gr. ij.
Fiat pil.

*Tinctura Aconiti* (dose, ♏ v. to ♏ xv.)—A light brown, transparent liquid, remains clear when mixed with water. When used as a febrifuge, doses of one or two minims only are given three or four times in the hour.

℞ Tinct. Aconit, ♏ j.
Aq. 3fs., omni. quadrante horæ sumend.

The above is an example of a colourless, tasteless mixture, and in such cases some colouring matter such as caramel (burnt sugar) is very frequently added.

℞ Tinct. Aconiti, ♏ j.
Sacchar. Mist., ♏ fs.
Aq. ad ʒ j. (Throat Hosp.)

*Linimentum Aconiti:* Aconite Root, Camphor, and Rectified Spirit.—A brown transparent liquid; on the addition of water the camphor is precipitated. This preparation is extensively used in different forms of neuralgia and chronic rheumatic pains. It must not be applied to abraded surfaces. It is very frequently diluted by admixture with Lin. Camph. Co. or Lin. Saponis.

℞ Lin. Aconiti, ʒ j.
Lin. Saponis, ʒ iij.
Ft. liniment part affect. applicand.
(London Hosp.)

*Aconitina.*—A white, usually amorphous, solid, soluble in dilute acids, rectified spirits and ether, but very sparingly soluble in water—according to the British Pharmacopœia 1 in 150, but specimens of aconitine are rarely so soluble as this; in fact, there is a great difference in the aconitine according as it is of English, French, or German manufacture.

Aconitine is extremely poisonous, and in this country its use is almost entirely confined to external application. Its action is uncertain unless that of the same manufacturer be always employed, and hence the administration of it in the form of pill or hypodermic injection is not to be recommended. The galenical preparations of aconite answer every useful purpose to which this drug can be applied.

*Unguentum Aconitinæ* (8 grains Anconitine and 1 oz. Lard).—A cream-coloured ointment. This preparation requires care in its use; a small piece the size of a bean is gently rubbed into the painful part, avoiding a mucous membrane or abraded surface. It can also be applied dissolved in oleic acid, according to the following formula:—

℞ Aconitinæ, gr. ij.
Acid Olsic, ♏ 100.
Solve.

## PODOPHYLLUM.—MAY-APPLE.

(Podophyllum Peltatum.)

From the rhizome of this plant is prepared a resin which has been long used in the United States, and forms one of a class of concentrated preparations termed "Eclectic Remedies."

*Resina Podophylli*—Podophyllin (dose, gr. ¼ to gr. j.)—A greenish-yellow powder, soluble in rectified spirit, from which it is precipitated by the addition of water. This substance is sometimes called vegetable mercury, as it is a powerful biliary purge. It is rarely given alone, on account of its griping properties, but combined with such carminatives as Hyoscyamus, Belladonna, and Cannabis Indica, and with other purgatives as Rhubarb and Aloes.

℞ Resin Podoph., gr. ¼.
Ext. Hyoscyam., gr. ij.
Ft. Pil. (London Hosp.)

℞ Resin Podoph., gr. ½.
Pil. Hydrarg., gr. j.
Ext. Hyoscy., gr. ij.
Ft. Pil. (Guy's.)

℞ Resin Podoph., gr. ½.
Pulv. Capsici, gr. j.
Ext. Belladon., gr. ¼.
Ext. Coloc. Co. ad. gr. v.
Ft. Pil. (Charing Cross.)

℞ Resin Podoph., gr. ½.
Pil. Rhei Co., gr. 4.
Ft. Pil. (Royal Chest.)

*Tinctura Podoph.* (dose, ♏ xv. to ʒ fs.)—contains one grain of Podophyllin dissolved in ʒ j. of rectified spirit. It has a very disagreeable, acrid taste, and when mixed with water the resin is precipitated; it is, therefore, not suitable for making a mixture with water on account of this separation of the podophyllin. A single dose might be ordered in an aperient draught, to be well shaken before administration; but if a number of doses are desired to be sent, the following is a good formula:—

℞ Tinct. Podophylli, ʒ j.
Tinct. Zingib. Fort., ʒ j.
Spt. Rect. ad ʒ j. M.
Capt. coch. parv. ex aqua.

In doses of 2 to 4 drops it is taken in tea or coffee for sick headache and biliousness. Also given to infants to relieve constipation, 1 or 2 drops on sugar.

Spt. Ammon. Aromat is a solvent of Podophyllin, and in this solution the addition of water causes no precipitate. The sal volatile also acts as a corrective.

℞ Resin Podoph., gr. j.
Spt. Ammon. Arom., ʒ j.
Solve. Dose as Tinct. Podoph.

H COLLIER.

# Sport.

## FOOTBALL.

### CLAPHAM ROVERS v. GUY'S.

Played at Wandsworth Common, Saturday, November 24th, 1888. Our opponents having won the toss, Allport kicked off against a very strong wind, the ball was feebly returned, and the first scrimmage was formed in the Rovers' twenty-five, but a rush by their forwards transferred it to the other end. Guy's forwards soon retaliated, the ball travelling from one twenty-five to the other in quick succession.

A good drop by Pring was badly misjudged by Coleman, Huntley backing up well, a try seemed certain, but Biggs, aided by his fine turn of speed, quickly checked his career. From the ensuing scrimmage, Steele got possession, passed to Bryant, he in his turn passed to Tuck, who made a very pretty run, gaining considerable ground before he was collared by Sharp. The Rovers' forwards now made a rush, but kicking too hard, Bryant smartly picked up the ball and made a very fast run through their forwards; on being tackled, he passed out to Bettington, who, by a clever run down the touch-line, nearly scored, only just failing to reach the coveted area by a few yards. From the scrimmage which followed, Fawcett secured the sphere and passed to Pantin, who, assisted by Allport, managed to get over the line, but was tackled before he could ground the ball; a maul followed, which was after a time stopped by the whistle for "held outside"—very hard lines on Pantin, as his gameness merited a better reward. Pantin's backing up might with advantage be copied by other members of the team, and many a point might be gained.

The Rovers managed to relieve their lines, but only for a short time, as runs by Tuck, Bettington and Bryant repeatedly caused them to resort to defensive tactics.

Some good play by the home backs carried the game to the centre, but Allport, ably assisted by Rogers, Fawcett and Biggs, by some very pretty dribbling, carried the ball very near the line. A long drop by Sharp transferred it to our twenty-five, Coleman, failing to return it, Huntley rushed the ball over our line, but Bryant was equal to the occasion and quickly kicked the ball over the hedge out of the field of play. Shortly after, half-time arrived without any definite point falling to either side.

On resuming, with the wind in our favour, Guy's were expected to do great things, but so vigorously did the Rovers play that for a short time they pressed us severely, and it was only the splendid tackling of our backs which prevented them from scoring. Some good forward play, in which Allport, Rogers and Pratt were conspicuous, carried hostilities into our opponents' twenty-five, where for a time we fairly penned them; good runs by Sharp and Pring relieved but they could not get away, Wallis tackling in a most effectual manner, bringing three of his opponents in quick succession to the ground.

From a good pass by Steele, Bettington secured, and by a clever dodgy run through the forwards, and the backs failing to hold him, he secured a try, which, however, was not improved upon. After the kick out, the Rovers made strenuous efforts to equalise, but our forwards cleverly averted the threatened danger. Both Bryant and Steele made useful runs and fairly outclassed the opposing halves.

The game continued to be very fast, but darkness coming on little further could be seen of the game, which terminated in favour of Guy's by one try to nil.

Huntley, Sharp and Pring did useful work for the Rovers, whilst Wallis, Tuck, Allport, Fawcett and Pratt played well for Guy's, besides those already mentioned.

The following played for—

GUY'S.—Back, Coleman; three-quarter-backs, Tuck, Wallis and Bettington; half-backs, Bryant and Steele; forwards, Allport, Fawcett, Biggs, Pantin, Smith, Muncaster, Pratt, Rogers and Layman.

## GUY'S v. COOPER'S HILL.

Played at Egham, on Wednesday, November 28th, 1888. A dense fog, heavy rain and an almost unplayable ground greatly marred what had promised to be a most interesting game.

Allport kicked off at three o'clock, and from the first it was evident that the game would be chiefly confined to the forwards, the rain and the greasy state of the ball rendering accurate passing almost impossible. We began to oppress our opponents from the commencement, and twice in succession Bettington caught the ball and was awarded free kicks, but only minor points followed these attempts. Some good forward play on the part of our opponents transferred the game to our twenty-five, but our forwards soon retaliated, and from a scrimmage Steele got possession, and passing well to Bryant, the latter made a capital run before being stopped by Todd. A free kick to Cooper's Hill removed hostilities to the half-way flag. Some quick passing between Bruce, Todd and Sconce enabled the latter to secure a try, which Todd successfully converted, notwithstanding that the goal-posts were scarcely visible.

A good dribble by Swayne, Allport and Fawcett looked dangerous, but Turner, falling on the ball, checked their onward career. From the ensuing scrimmage, Bryant screwed and made a good run, but was forced into touch. Immediately afterwards half-time arrived.

After the interval, Smith kicked off, but the fog getting thicker and thicker little could be seen of the game, and after about ten minutes' play, the game had to be abandoned as a draw.

TEAMS.

GUY'S.—Back, J. T. Edwards; three-quarter-backs, C. J. Prime, S. S. Wallis and J. H. Bettington; half-backs, J. H. Bryant and H. G. Steele; forwards. A. Allport, J. Biggs, W. Bligh, F. G. Swayne, J. Fawcett, W. Rogers, J. H. Muncaster, Layman and Pattin.

COOPER'S HILL.—Back, Falkeath; three-quarter-backs, Turner Todd and Sconce; half-backs, Bruce and Forrester; forwards, Smith Barclay, Norton, Thorpe, Christie, Latham, Humphreys, Wright and Thornton.

## NEWPORT v. GUY'S.

Thanks to the pertinacity of our captain and secretary, the greater part of whose time last week was taken up in securing men to play in this important and, one would have thought, popular match, a fairly strong team was got together. Allport and Jordan deserve the best thanks of the Hospital for helping us on this occasion, though they were wanted for a match elsewhere, where

more personal glory might have been obtained. We trust that their conduct may inspire others to follow their example, especially as the Cup Ties are coming along presently, when our only chance of success will depend upon good combination.

"Verbum sat. sap.!"

After a very pleasant journey, Newport was reached about 10 p.m. Most of the home team were present at the station to meet us; a short walk landed us at the "Tredegar Arms," where every hospitality was shewn us.

The match was played on the Newport ground, which was very greasy and wet; a drizzling rain falling the greater part of the time.

At 3 o'clock the teams entered the field, being loudly cheered. Harding at once kicked off for the home team, the ball was well returned and the first scrimmage occurred in the centre, some good play by Thomas and Webbe threatened our lines, but Wallis splendidly relieved his side by a good drop into touch; from the line out Allport got possession and made some ground, but Thomas, securing the leather, passed to Webbe, who made a splendid run, but just as he looked dangerous Pantin brought him down. A good dribble by Jordan carried the game to neutral ground, Downe falling on the ball prevented any further disaster; from the ensuing scrim Jordan magnificently receiving a pass from Bryant went off at full speed, dodging his opponents in capital style, one after another trying in vain to floor him, he cleverly obtained our first and only try. Bligh made a good attempt at goal, but could not quite register a major point.

After this reverse, Newport played up in determined fashion; a free kick compelled us to touch down. The kick out relieved our lines, but only for a time, as some clever passing between the Newport backs enabled Webbe to secure a try, bnt failed at the place kick.

For a time our opponents fairly penned us, but so well did our forwards play that attack after attack was repulsed. An infringement of the offside rule gave us a free kick, which momentarily relieved us, but Newport were not to be denied, and some very neat passing ended by C. Thomas gaining another try, but Webb again failed with the place kick. After the kick out, Guy's, aided by a splendid dribble by Allport, carried the fray dangerously near the Newport lines, but Fothergill secured and made up the lost ground, but was well tackled by Wallis. Even play followed, and with the game in the centre of the ground, half-time arrived, the score standing: Newport two tries to Guy's one try.

After a brief interval play was resumed, Newport attacking in strong force, but Wallis was at his very best, and do all they could he managed to keep his opponents out for some time, bringing his man down in splendid style. A scrimmage in front our goal now occurred, and Downe getting the sphere, transferred it to G. Thomas, who, aided by his great pace, managed to run right round and obtained a splendid try between the posts, which Webbe easily converted into a goal.

Guy's now seemed to improve very much, our forwards shewing up in brilliant style, Fawcett especially playing a really clever game; dribbling in fine form managed to transfer to the home twenty-five. From a line out Rygate secured and cleverly eluded several of his opponents before being stopped by Harding. Steele now came in collision with Downe, cutting his head, causing a slight delay, but he pluckily played on, being loudly cheered by the crowd.

Guy's, improving every minute, looked like scoring, but could not break through the strong defence of the Newport backs. A free kick to Newport relieved their lines, but Wallis, gathering the ball in first-rate style, made a splendid run, finishing up with a clear drop, again forcing our opponents to act on the defensive. Allport, Rogers and Pilcher each gaining some ground by sound play.

From a scrimmage, Bryant secured and passed to Steele, who made a useful run, but his onward career was checked by G. Thomas before he could get over the line. Guy's still continued to press, runs by Bryant, Jordan and Bettington causing our opponents much anxiety, till Webbe, by a good drop, relieved the pressure, but Wallis agained returned in faultless style, and our forwards, headed by Allport, made several dangerous rushes, and experienced hard lines in not scoring on more than one occasion. Soon after the whistle sounded bringing a very pleasant game to an end the score standing: Newport, one goal and two tries; Guy's, one try.

Wallis, at back, played a splendid game, his grand all-round play earning him golden opinions in South Wales. Jordan was a tower of strength; his running at times was simply marvellous. Bettington and Prime were severely handicapped by the state of the ground, but both performed their allotted tasks with credit to themselves.

Bryant and Steele clearly demonstrated that they can hold their own in any company. Both played with great vigour and judgment.

Our forwards shewed marked improvement, and too much praise cannot be given to them. They worked hard, and put in some very clever play, Fawcett, Allport, Pantin, Bligh, Rogers, and Rygate shewing up prominently, both in the packs and the loose.

Teams.

Guy's.—Back, S. S. Wallis; three-quarter-backs, C. J. Prime, H. M. Jordan, and Bettington; half-backs, J. H. Bryant and H. G. Steele; forwards, A. Allport, W. Bligh, J. Fawcett, J. H. Muncaster, H. B. Rygate, J. Layman, W. Rogers, E. M. Pilcher, and Pantin.

Newport.—Back, T. England; three-quarter-backs, J. E. Webb, G. Thomas, W. Pollock, and F. W. Fothergill; half-backs, C. Thomas and T. Downs; forwards, T. Edwards, T. H. Griffiths, T. C. Graham, E. Jones, J. Hannan, T. Golightly, H. Day, and T. Harding.

**Guy's Hospital Gazette,**
*DECEMBER 22, 1888.*

## NOTES ON A CLINICAL LECTURE.

By Dr. Pye-Smith.

### ACUTE TUBERCULOSIS.

Case of a man, aged 19, admitted for dyspnœa and extreme cyanosis on December 3rd.

*Family History.*—Some chest trouble, of doubtful nature.

*Previous History.*—Cough off and on for about a year. Losing flesh a week or two, and out of sorts. On November 28th he had to give up work. On December 2nd, dyspnœa and cyanosis, gasping for breath.

*On Admission.*—Temp. 100·6; R. 52; P. 144. Extremely cyanosed, breathing laboured, pulse weak. Râles, mucous and sub-crepitant, all over the chest, no dulness. No sucking in of ribs. No abnormal cardiac signs. Tongue dry and brown. Fingers clubbed. At 6 p.m. breathing worse; delirious. Pulse became more feeble, and he died 1 a.m.

P.M.—Both lungs studded with small tubercles. No old phthisis; numerous tubercles in peritoneum; one small ulcer in ileum; tubercles in kidney and liver. No caseating focus could be found. Old pleurisy.

Dr. Pye-Smith said that this condition of cyanosis and dyspnœa makes one think of

1. Child with foreign body in air passage.
2. Pneumothorax (rupture of vomica).
3. Extreme effusion on one side and œdema on the other.
4. Acute pneumonia, or severe acute bronchitis (the aspect was that of pneumonia, but the temperature was not high enough); there was no sputum, no physical signs. Acute bronchitis might have been conceivable in old person with capillary bronchitis, or little child under 7 or 8 years.
5. Congenital heart disease (perhaps complicated by attack of acute bronchitis).
6. Cardiac bronchitis.
7. Bronchitis in the course of phthisis.
8. Miliary tuberculosis. This is dependent on a specific bacillus derived from a primary source in the body, which Dr. Pye-Smith regards as essential.

In the present case the clubbed condition of fingers, also the age, were consistent with chronic lung disease.

In cyanosis, then, look for mechanical obstruction in larynx, &c., and examine apices and bases.

*Treatment.*—In Cyanosis, &c., with Rt. heart embarrassed, bleed (4 to 8 ounces).

Give diffusible stimulants, of which ammonia is the best; ether; brandy (♏ x. to xv. by injection).

What was the origin of the present disease? In the absence of any primary focus, Dr. Pye-Smith suggested that the old pleurisy found P.M. was probably tubercular, and predisposed the patient to an acute attack.

### ASCITES.

Referring to some cases of Ascites, Dr. Pye-Smith divided it as follows:—

1. Part of a general dropsy, renal or cardiac.
2. Passive effusion (from portal congestion).
3. Active effusion of inflammatory origin.

Passive effusion may arise from:—

*a.* Cirrhosis of liver from drink. (This may occur in children.)

*b.* Syphilitic liver.

*c.* Tumour pressing upon portal vein.

Active effusion from:—

*a.* Acute peritonitis. A septic and purulent inflammation, as in puerperal perforation, &c. Nearly always fatal. Intense pain, tympanites, thready pulse. Give opium.

*b.* Local subacute peritonitis, with adhesions, as perimetritis, perihepatitis, peri-splenitis, &c.

*c.* Chronic peritonitis. No pain (resembles hydrocele). Affects the whole peritoneum, not due to a primary peritonitis, but an inflamma-

tory condition set up by some diseased viscus. Tap.

*d*. Tubercular peritonitis.

*e*. Cancerous. Cachexia, pain, lumps felt, sometimes jaundice; blood on tapping.

## CIRRHOSIS OF THE LIVER WITH DILATATION OF THE STOMACH.

This case is of interest in that it gives prominence to the possibility of a very serious surgical accident.

Mary C., æt. 47, was admitted to the hospital on November 6th, with ascites, anasarca and dyspnœa. She gave a history of four months' illness with two months' swelling of the abdomen, and this she noticed first in the left hypochondrium. Patient had been married for 18 years, and had had three children. There was nothing to suggest ovarian disease. She had drunk largely of beer for the last six or seven years, probably for much longer, and had not taken food well for some time, but had never patronised spirits.

When first seen, there was great dyspnœa, râles being heard all over both chests, and bronchial breathing at upper part of left. The thighs and legs were very œdematous, and the abdomen was much distended, especially at the upper part, giving one the idea of an hydatid cyst. The urine was acid, high coloured, and had a specific gravity of 1027, loaded with urates, no albumin. Paracentesis abdominis was performed in the middle line 3½ inches below the umbilicus, with a large-sized trochar and canula to relieve the breathing, but only 10 or 12 ounces of ascitic fluid escaped, the end of the canula imfringing against a distended cyst. Luckily, the trochar was not reintroduced for fear of transfixing a piece of the bowel. Fluid drained away from the puncture wound for ten days, and the size of the abdomen was much reduced, but nothing definite could be made out as to the state of the viscera on account of flatus. The patient subsequently developed pleurisy, and died on November 25th.

At the autopsy, a large quantity of clear ascitic fluid was found in the abdomen, and no recent lymph. The stomach was extensively dilated, and almost concealed all the other viscera, the omentum being stowed away on the left side. When the organ was removed it was found to have a capacity of 122 ounces, and it was against this that the canula impinged at the time of the operation.

The ascites was due to an extremely cirrhotic liver of the hobnail variety, whose weight was 38½ ounces; the umbilical vein was patent and of considerable lumen, which probably accounted for the late onset of the ascites.

The kidneys were small and congested, and the other abdominal organs normal.

There was no apparent cause for the dilatation of the stomach, which was possibly due to overfilling and traction on its pyloric end by the shrinking of the liver.

There had been some vomiting, not sufficient, however, to cause alarm, and no pyrosis.

*Bolton, Nov. 29th, 1888.* E. C. KINGSFORD.

# Correspondence.

*To the Editor of* Guy's Hospital Gazette.

Dear Sirs,—For some time past I have been anxious to lay my views before the profession upon the pathology and treatment of diphtheria and scarlatina.

In November, 1880, I sent a paper to the *Lancet*, upon reading, in that journal, a report of five fatal cases of diphtheria occurring in St. George's Hospital, with the peculiar treatment adopted at that time. I say peculiar, for it was strongly stimulating and tonic ab initio, under which the patients speedily succumbed.

I then went to shew that the alterative and eliminating plan of treatment with which I commenced (about sixty cases) had been most successful, having only had two fatal cases under my care during thirty years of active practice. I ought to state that I always commenced by brushing off (as far as practicable) the fungus deposit on the tonsils with a strong solution of nitrate of silver (ʒ j. to the ℥ j.—a powerful microbicide and antiseptic), and continued this application daily while any deposit remained on the fauces.

During the last few years, however, the science of bacteriology has done much to aid us in arriving at a more correct view of the pathology and treatment of diphtheria and scarlatina, as well as cholera. The scientific researches and experiments of Doctors Tyndal, Koch, Pasteur, and others, have lately shewn that we have chemical agents which will destroy the microbes and their spores in a very short space of time, which can be admistered as remedies internally in these septic diseases—*e.g.*, perchloride of mercury will act as a microbicide in ten minutes (1 in 2,000). This, therefore, may be termed the prince of antiseptics. Chlorine and iodine, oil of mustard, and oil of peppermint, are likewise very decided in their action as antiseptics, and may be utilised in the above-named diseases.

As it is known that these micro-organisms multiply with frightful rapidity when once within the body, it is so important to adopt energetic measures for their destruction and extermination without loss of time. To this end I would recommend, in a case of diphtheria, to commence by washing off the fungus-like deposit with a camel's hair brush, dipped in a solution of the perchloride of mercury, or the liq. sodæ chloratæ. I should then administer a mustard emetic, so as to dislodge and evacuate these micro-organisms from the stomach œsophagus and fauces. In half-an-hour, or as soon as the system had recovered from the effects of the emetic, I should give a dose of the liquor hyd. perchloridi in a little strong peppermint water. This might be repeated in another hour, and in about half-an-hour after this second dose of the liquor hyd., a dessert spoonful, or a medium dose, of castor oil in peppermint water, as an effectual evacuant. Having cleansed the entire gastro-enteric canal of these pernicious atoms, those that have got into the blood must be disposed of in the way that Dame Nature is wont to do—*i.e.*, by the emunctories of the body aiding her in various ways, viz.: by keeping the patient warm in bed in an airy apartment, administering salines with chlorate of potash, aided by easily digested food, *i.e*, *pure* milk, beef tea, barley water, and cocoatina, is all that is necessary for two or three days, especially while any febrile symptoms are manifest. Tonics and stimulants in the early stage should not be given.

Under the above treatment the system will very soon manifest reaction by ridding it of the materies morbi under which it is so distressed. Doubtless there are cases which will require a course of ferruginous tonics for some little time, as it is well known these animalcules lessen the red corpuscles of the blood.

In the administration of the liq. hyd. perchloridi, we must bear in mind that it is not only a special microbicide, but by its action on the liver, increasing as it does the biliary secretion—which is likewise admitted by many to be an antiseptic—and in order to strengthen our belief in this doctrine, we know that in cholera cases, as soon as the secretion of bile was restored, we considered the patient safe; and, as Dr. Koch stated, when writing upon the cholera poison, "as soon as the dejections became fæculent, the comma-like bacillus gradually disappeared, and were not to be seen after recovery."

It is tolerably well known, too, that during the visitation of cholera in our fair isle, the calomel treatment was the most successful. The College of Physicians advised the mist. cretœ co. with opium to start with, and to be kept for use at all dispensaries, not at that time knowing the disease depended upon the energetic bacilli.

Dr. George Johnson, who wrote on the cholera poison fifteen years ago, was not aware of the exact nature of the materies morbi, but stated, that if it was not expelled from the system by vomiting or purging, or if its exit was hindered by opiates or astringents, collapse soon supervened, with a fatal result. He commenced with a dose of calomel, followed by repeated small doses of castor oil, which treatment was one of the most successful modes of treatment—*i.e.*, the eliminative.

Now, I trust, were these bacilli to enter our system, we should screw them up, and evacuate them by a mustard emetic, followed by the above antiseptic treatment.

Dr. Pavy, whose Hunterian oration I listened to with much pleasure last year, stated that "when once the parasite has entered and dispersed through the system of a living person, and, presuming it has lodged upon a soil supplying suitable conditions for its development, it will thrive and multiply, and give rise to a series of phenomena which the physician has no power to arrest. All that he can do is to see that the patient has fair play, and that he is kept under the most favourable circumstances for battling successfully against the enemy."

One of the most frequent sources of diphtheria and scarlatina has been lately discovered in the milk. A few months since twelve fatal cases of diphtheria were registered in our neighbouring parish, Ealing, in as many days, which was traced to cow's milk. I wrote to the local paper, warning the public against allowing the animals to drink from stagnant pools, which, at this season of the year, especially, are teeming with organic life, and doubtless the *fons et origo mali!* While on this important point, I should like the profession to agree with me in urging the advisability of all cow-keepers to give their animals (where practicable) the waters of the Company, of which they themselves partake.

Dr. Klein stated a short time since that the epidemic of scarlatina at Hendon last year was traced to microbes from a tin of condensed milk.

In the treatment of scarlatina with the above antiseptic plan, I would comfort the patient, and stimulate the cutaneous surface, by sponging the body all over with warm vinegar and water for the first three days, and subsequent three days by skin inunction, as, I believe, is now usually practised as a prophylactic method, to be followed by two or three washings of the body with carbolic soap and water, and much dry rubbing.—I am, Sir, yours, &c.,

E. MAY.

# Physical Society.

## PUERPERAL TOXÆMIA.

Abstract of a Paper read before the Physical Society, by Mr. Frederic Vicars, November 24th, 1888:—

The author pointed out that while different authorities have set forth one or other definite cause for puerperal fever, it is chiefly by Robert Barnes that the multiplicity of causes is laid down and sustained by argument. There are many puerperal fevers. Dr. Barnes divides them into two great classes—autogenetic and heterogenetic. The first includes (1) the simple excretory fever, produced by the failure of the organs to excrete the waste products of involution and constituting what is called *endosepsis*. This form complicates all other fevers. It is in itself the only true puerperal fever. (2) The fever caused by the absorption of foul stuff from the parturient canal, which latter may be the cause of the various forms of septicæina in the puerperal state such as metritis, peritonitis, pelvic cellulitis, thrombosis and general toxæmia. In the heterogenetic class the poison is from without, the cadaveric poison, septic matter from other puerpera, probably animal poisons, and lastly, zymotic poisons, as scarlatina and erysipelas.

*Symptoms of general toxæmia.*—On third or fourth day a sudden rigor will arouse suspicion that something is wrong. A marked rise of temperature, 102° F. to 103° or 104° F. Pulse is frequent, but varies in rate acccording to the intensity of the poison, rarely exceeding 120. Peritonitis more or less. Nausea and vomiting, with abdominal pains, which may subside in a few days, but considerable tenderness remains. Severe frontal headache is a marked and early symptom. Sleeplessness coexists. The lochia usually become affected. The condition of lochia would appear to be of value. Dr. Horrocks divides puerperal toxæmia into two chief classes, viz.: those with a foul discharge and those without a foul discharge. The countenance wears an anxious expression and is sallow and sunken, Delirium low and muttering is often present, and diarrhœa. The diarrhœa may be only moderate, and then it appears to do good and have an eliminative action; on the other hand purgatives, which are strongly recommended by some German authorities, seem to be the cause of a profuse diarrhœa which cannot be controlled and produces great exhaustion, the very thing to be avoided. The tongue is usually coated. The secretion of milk is often, but not always arrested. The breath has a characteristic sweetish septic odour. Profuse sweating is a common and distressing symptom, and may be so marked that by some it has been considered a distinct form of the disease.

*Local symptoms.*—Peritonitis. The intestines may become greatly distended with flatus, increasing the severity of the pain and causing marked abdominal distension. More or less fixation of the uterus may be made out by vaginal examination.

*Complications.*—Pneumonia, pericarditis, pleurisy and nephritis. The disease is not always so intense and may take a more chronic course. Suppuration may occur in the third week. A hectic temperature and well marked rigors indicate its onset. Patches of erythema are sometimes observed on various parts of the body, and it is such eruptions that are supposed by certain authorities to have misled some observers into thinking this symptom to be a proof of its zymotic origin. Abscesses may form and pus may burrow in different directions. A bad case is generally fatal in a week, the patient sinking from exhaustion or the virulence of the poison; on the other hand, death in the more severe cases of a pyæmic character may take place after many weeks. Recovery is determined in a great measure by the cause. In the report of the Collective Investigation Committee of the British Medical Association, of 354 cases the total mortality was 47·4 p.c.; of these, the mortality in the autogenetic class was 37·7 p.c.; while in the heterogenetic class it was as much as 59·4 p.c. Doubt, however, was expressed as to the value of these reports, chiefly from the fact that the use or not of antiseptics during labour is not mentioned. In most cases probably they were not used, so that one safeguard against sepsis of any sort was neglected, and fallacy is only too likely to creep into such statistics. A medical man who does not believe in, or trouble himself to use, antiseptics, will naturally be disposed to the convenient theory of either endosepsis or a handy case of scarlatina from which to trace his fatal case. A few cases in which every particular as to the general condition of the patient and her surroundings is known to the investigator. together with a rigid enquiry into the antiseptics used and the way they were used, would seem more reliable and satisfactory.

The deteriorating effect of modern civilisation on women in all classes of life was next discussed. Women are not brought up to be the mothers of men. Maternity for one class is a nuisance, an interference, perhaps, in a course of continuous amusement. For the other class it is an additional woe, a stumbling block; and as the mother's health is crippled by one or other way, so do we come to the consideration of Dr. Barnes' theory of endosepsis. Upon this point he writes: "A puerperal woman can develop fever out of the natural processes going on within her, that is, that there is an autogenetic puerperal fever. It arises in this way: During gestation the blood assumes a peculiar character, the vascular and nervous system is in high tension, the volume of blood is increased, new vessels are developed, new tissues are formed in subservience to the need of the embryo. There is no absorption of superfluous matter beyond the usual waste of nutrition. But the moment labour has taken place a sudden revolution occurs. On the second or third day the superfluous tissues brought into existence during gestation undergo rapid disintegration, and must be as rapidly got rid of. The tide is turned. The process of absorption is intensely active; volumes of effete stuff are quickly sucked into the circulation, and unless the excretory organs are in

good working order, the stuff that should be eliminated accumulates, the healthy blood is overpowered, and fever is kindled. Here we read the story of autogenetic puerperal fever." To this Dr. Barnes adds the very important remark: "But it is in this condition peculiar to the puerpera that we find the nidus for the reception and evolution of noxious poisons from without." The holders of the purely septicemia theories will only allow that Dr. Barnes' endosepsis theory affords some explanation of increased susceptibility in certain puerperæ. Several interesting cases in support of the endosepsis theory were cited, where fear or nervousness were the apparent cause of toxæmia. A discussion at the Obstetrical Society was referred to in which Drs. Galabin and Grailey Hewett brought forward two cases. Neither, however, were disposed to consider them of an endoseptic character, Dr. Grailey Hewett suggesting that the cause was due to relaxation of uterus and consequent absorption of septic material. Assuming the possibility of a case of endosepsis, it only shows the importance of ensuring the general healthy condition of a mother before her confinement, and securing free action of all secretions and care in the puerperium.

The cause due to absorption of foul stuff from the parturient canal was next dealt with. Experience shows how fever may result from the retention of a piece of detached or injured placenta, some portion of the membranes or a blood clot. Four cases were related in the author's own experience where retention of a portion of the membranes appeared to be the cause of a rise of temperature. In three of these the lochia were offensive. Simple vaginal injections of 1 in 60 carbolic reduced the temperature. Retention of a portion of the placenta was discovered. For these cases of septic intoxication the word sapræmia has been used. The toxic effects seem to be in proportion to the amount of septic matter absorbed. With regard to the state of the lochia, through Dr. Horrocks' kindness the reports of cases of puerperal toxæmia in Guy's Charity during the last ten years were referred to. In a group of 36 cases, out of 18 in which the condition of the lochia is noted, it stands—

| | | | | |
|---|---|---|---|---|
| Lochia, foul | ... | 8 cases | ... | 4 deaths. |
| „ sweet | ... | 7 „ | ... | 5 „ |
| „ absent | ... | 3 „ | ... | 3 „ |

Now, foul lochia appear a more favourable sign than when the lochia are sweet or absent. Local decomposition is usually the cause of a foul discharge. Remove the cause, and if the poison has not had too great a start, improvement quickly results. Several cases from the "Collective Investigation Record" were quoted on this point. A very good case was given, occurring in Mr. Macgillycuddy's practice at West Haddon, in August of present year:—

*M. O., 37, married, 4th child.* In last two pregnancies had toxæmic symptoms; first time "white leg," and second time puerperal septicœmia, in same village but not in same house. Present case: No rash; abdominal distension; peritonitis; uterus well contracted throughout; recovery; labour natural; placenta expressed.

*History.*—On third day rigor, headache, pulse 110, and strong, sweet septic odour pervading room, and foul lochia; temp., 102° F. Fourth day: Temp., 104°; quinine, g. vi., 6tis. horis. Fifth day: Temp., 102·8°; Warburg's tincture, ʒj. t.h. Sixth day: Temp., 103° and over. Evening of sixth day medicine stopped. Uterus washed out with Condy's fluid, Mr. Macgillycuddy using a Budin's grooved tube. Patient had refused to allow injections before. Blood clot, size of large walnut, in decomposing state came away. Next day, seventh, temp. fell to 102°; injections, t.d.s. Eighth day: Temp., 101·4°. Ninth day: Temp. rose to 103°; the day was hot, and there was increased smell from a privy outside window; the situation was such patient could not be moved; no medicines; brandy and eggs diet. Eleventh day: Syringed four times, and from this four times daily. Evening, temp., 101°. Thirteenth day: Temp., 102·6°; another hot day, and privy more odorous. Temperature gradually fell, till fifteenth day it was normal. Patient made good recovery. Abdomen was tender and painful, and with diarrhœa continued so till temp. fell to normal. No special treatment. Later, tonics. No other bad case at time. Richardson's Thymol jelly as lubricant and Condy's fluid as wash for hands used.

This last case is interesting by reason of the possible double cause of toxæmia—the decomposing blood clot and the foul emanation from the privy. Foul sewer gas has been proved over and over again a source of poison. The author cited a case from foul odours that occurred under him when "extern," in which a fish manure manufactory was on one side of the house and a smelling stableyard on the other. The patient did well, however.

The varities of limited toxæmia, such as cellulitis and phlegmasia dolens, were not discussed from want of space. In the heterogenetic class it was noted that Semmelweis in Vienna, in 1846, proved incontestably the relation of post mortem poison to puerperal septicæmia. Contagion from other cases of toxœmia in puerperæ is another well proved source. In the Collective Investigation Record the mortality in these cases is 70·8 p.c., or 17 in 24 cases. A case was quoted from the Record in which the child was also affected. The zymotic diseases were next considered as a source. Some consider that the septic poison is specially modified and produces in puerperæ a very virulent form of toxæmia, without the attending symptoms of scarlatina. Two cases of Dr. Braxton Hicks' were cited in which the mother had septic symptoms and her children developed true scarlatina afterwards. Scarlatina may occur without a rash, or the rash may be so slight as to escape observation. It is probable scarlatina may predispose to septicæmia, especially in the more malignant variety, and when we consider the question of the kidney affection commonly occurring in scarlatina, we may not unnaturally think of Dr. Barnes' theory of the failure of excretion of waste products, either producing self poisoning, or at least favouring septicæmia from any cause. It is possible that the purely septic contagion in some cases may be the pus of a sloughing throat. True scarlatina, however

occurring in puerperæ, is not very fatal. Erysipelas was next referred as a well proved source of toxæmia.

*Prophylaxis.*—Care to prepare a woman for child-bed was urged. The mental and physical states being dwelt upon, a remark of a lady to the author that pregnancy consisted of "nine months' misery and then an earthquake," was mentioned. A little judicious advice and a hopeful manner, it was said, can often do much to allay the fears and forebodings so common in the expectant mother. The attitude of the Jewish mother of old, who looked forward to the glorious possibility of her offspring being the promised Messiah, was contrasted with the view of the modern mother. "From the sublime," said the author, "we descend to the ridiculous. From the hope of Israel to the contemplation of an 'earthquake!'"

The management of the third stage of labour, according to the "Rotunda" method, was advised to shut the door against sepsis. Careful examination of placenta and membranes, and immediate search in the uterus by the aseptic hand in case any part should be missing, was urged. A binder, with an original cork pad, for direct pressure on fundus of uterus, were recommended. The use of elaborate antiseptic precautions was considered imperative. Convenient solutions can be readily made with Robertson's pellets, Hartman's lotiforms, or Sumner's powders of corrosive sublimate. The question of irrigations, vaginal and uterine were next dealt with, a post partum douche being advised. An ingenious continuous syringe, by Sumner, of Liverpool, whereby the entrance of air is avoided, was shown. Lacerations, as offering a site for septic absorption, should be sewn up. The ordinary diaper was denounced, and Hartmann's antiseptic wood wool, and Southall's sanitary towels recommended.

*Treatment.*—This consists really in a greater persistence in the before-mentioned prophylactic measures, with particular attention to supporting patient's strength to combat the poison. The value of intrauterine injections was impressed. Condy's fluid, carbolic acid, corrosive sublimate and iodine were spoken of for this purpose, and iodine, on the advice and experience of Drs. Barnes and Routh, advised. It is said to have more than a local action, permeating the tissues and also acting in the circulation. That it should be done thoroughly was impressed by a case of Dr. Grigg's in which *post mortem* the upper third of the uterus was found foul and stinking, whereas the lower two-thirds were perfectly sweet, and the line indicating the extent of the injection could be easily recognised. Mr. Lawson Tait recommends opening the abdomen should pus form there. Turpentine and the hot pack were advised on the authority of Dr. More Madden. The surroundings of the patient should be a matter for care.

The author concluded his paper as follows:—"I would urge on three things: (1) The importance of establishing as far as possible a healthy regime in the future mother; (2) The adoption of the "Rotunda" method in the management of the third stage of labour to secure efficient uterine contraction; (3) The most rigid antiseptic precautions on the part of both accoucheur and nurse. It is, gentlemen, I believe, by a faithful adherence to these rules that we may look forward with no uncertain hope to the banishment of this fell disease from the lying-in chamber, and ensure the safety and welfare of the mothers of men throughout the length and breadth of the land."

In the course of his reply to the discussion on the paper, Mr. Vicars read the following letter from Dr. Robert Barnes, in answer to a question:—

"Dear Sir,—I am happy to answer your question. Certainly, I have seen cases of scarlatina in puerperæ in which the rash if it existed had escaped observation; but some sore throat was rarely wanting. Your conclusion on this point—the disturbing force of scarlatinal infection on the excretory function as producing or aggravating self-poisoning—is certainly correct as a clinical fact.

"You will observe that this is quite a different thing from saying that *all* puerperal fever is autogenetic, as was lately suggested by a teacher who, believing in the absolute and universal theory of scpticæmia as accounting for puerperal fever, cannot see anything else. Two truths may find admittance in a liberal mind; it is only truth and error that cannot co-exist. A man whose mind is so contracted that he cannot receive two ideas which are quite compatible, should not deny the capacity of another man to receive them.—Yours very truly,

"Robert Barnes."

At the conclusion of the discussion an interesting collection of antiseptic preparations and various instruments and appliances in connection with the subject were shown. Among the latter was an ingenious continuous syringe invented by Sumner of Liverpool.

## FORTHCOMING EVENTS FOR THE MONTH OF JANUARY.

Jan. 1. First Conjoint Examination begins.
,, 3. Lectures resumed after Christmas Recess. Second Conjoint Examination begins.
,, 5. Meeting of Physical Society at 7.30 p.m.
,, 9. Third Conjoint Examination begins.
,, 14. Matriculation Examination of London University begins.
,, 19. Meeting of Physical Society at 7.30 p.m.
,, 21. Preliminary Scientific and Intermediate M.B. Lond. Examinations begin.
,, 24. Applications received for House-Physiciancies and House-Surgeoncies.

## NOTICE TO CORRESPONDENTS.

*The Editors wish it to be understood no communications can be inserted which are not guaranteed by the name of the sender. All articles must be written on one side of the paper only.*

# Passim.

We understand that the Governors, at their meeting on Wednesday last, sanctioned the establishment of a complete Dental School as a Special Department of the Hospital. We hope to publish full details of the scheme in our next issue.

Our readers will see that the Guy's London University Club is no longer only a proposition, but an established fact, and bids fair to be a success.

In another column we give the result of the recent M.B. examination at the University of Cambridge.

The degree examinations of the London University have at last come to an end, and the lists are all out. Guy's men may well look with satisfaction at the results, and the reputation of the Old School is well maintained by those who have represented it. At the M.B. "pass," out of a list of 71, we have 16 places. In the Medicine honours' list we have 3 places, in Obstetric honours 2, and in Forensic 3. In the B.S. pass we have taken 11 out of 19 places, thus maintaining our reputation for doing especially well in Surgery. Out of 10 who passed in the first division 7 are Guy's men, and out of 9 in the second division we have 4 places. In the honours, out of a total of 8 placed, we have 4, 2 first class and 2 second, taking the second place with the gold medal, and the third place. In the M.D. 4 of our men have passed. In the M.S., out of 3 passes we have 2, the gold medal having been taken by one of the two.

We have much pleasure in printing the following resolution, which by request of the Treasurer and Governors has been posted in the colonnade:—

"Resolved that the Treasurer be requested to convey to the Dean and Members of the Medical School the satisfaction of the Governors at these results, and also their high appreciation of the industry and ability of the Students by which they have secured for themselves such distinguished positions."

## THE PROPOSED GUY'S HOSPITAL LONDON UNIVERSITY CLUB.

A Meeting, to consider the advisability of the formation of the above club, was held in the Clinical Theatre on Wednesday, the 12th instant, at 2.30 p.m.

The Chair was occupied by Dr. Pavy, F.R.S., Senior Physician to the Hospital.

After a short opening speech by Dr. Pavy, in which he explained the objects of the proposed club, the following Resolutions were proposed, seconded and carried unanimously:—

I. That the Club should be formed.

II. That the Club should be called the Guy's Hospital London University Club.

III. That Dr. Pavy should be asked to be President of the Club (Dr. Pavy, with his usual kindness, at once consented).

IV. That all Members of the London University who are Guy's men shall be eligible for admission as Members of the Club.

V. That the following Gentlemen should be asked to serve as the Provisional Committee:—

| | |
|---|---|
| W. Hale White, M.D. | W. A. Lane, M.S., M.B. |
| L. E. Shaw, M.D. | L. A. Dunn, M.S., M.B. |
| J. H. Bryant. | F. G. Hopkins. |
| H. J. Campbell, Sen. H.P. | A. Parkin, M.B., B.S. |
| H. E. Crook, M.B., B.S. | J.L.Roberts, M.B.,B.A.,B.Sc. |

L. E. Shaw, M.D., and H. E. Crook, M.B., B.S., acting as Secretaries.

VI. That the Provisional Committee should draw up a Scheme for the working of the Club, and that such Scheme should be submitted for approval at the next General Meeting.

VII. That the next General Meeting should be held in the second or third week of January, 1889; due notice of the date to be given in the Guy's Gazette.

The proceedings then terminated by a Vote of Thanks to Dr. Pavy.

## NOTICE.

We are pleased to inform our readers that we have again made arrangements with our Printers, Messrs. Ash & Co., for the binding of Volume II. of the Gazette on the same terms as last year, viz.:—If Fifty Subscribers send in their names, with complete sets of copies for 1888, they can have them bound in blue with the Arms of the Hospital in gold for *One Shilling and Sixpence* each.

## APPAREILS POUR LES APPLICATIONS THÉRAPEUTIQUES DU CHLORURE DE MÉTHYLE.

Ces appareils, qui se présentent sous la forme de simples tubes métalliques (Fig. 1), sont disposés pour projeter et pulvériser le chlorure de méthyle.

Fig. 1.

Bte. S. G. D. G.

*Mode d'emploi.*– Tenir le tube comme l'indique la Fig. 2 et, après avoir enlevé le bouchon A, tourner le bouton B à gauche, pour ouvrir ;—à droite, en serrant fortement, pour fermer.

M. le Dr. Dujardin-Beaumetz présente à l'Academie *un nouveau pulvérisateur de dhlorure de méthyle* construit par M. Galante sur les indications de M. le Dr. Debove. Cet appareil, fort commode, fort maniable, que l'on peut facilement emporter avec soi, remplace avantageusement les siphons que l'on employait jusqu'ici.—C'est un tube métallique enveloppé de caoutchouc à l'extrémité inférieure duquel se trouve une ouverture filiforme par où peut s'échapper le jet de chlorure de méthyle.—Un système d'ouverture et de fermeture très ingénieux permet de produire le jet de chlorure de méthyle avec une extrême facilité.—Le prix en est peu élevé.—M. Galante a construit des tubes contenant des quantités variables de chlorure de méthyle.—*(Académie de Médecine, séance du 20 mars 1888.)*

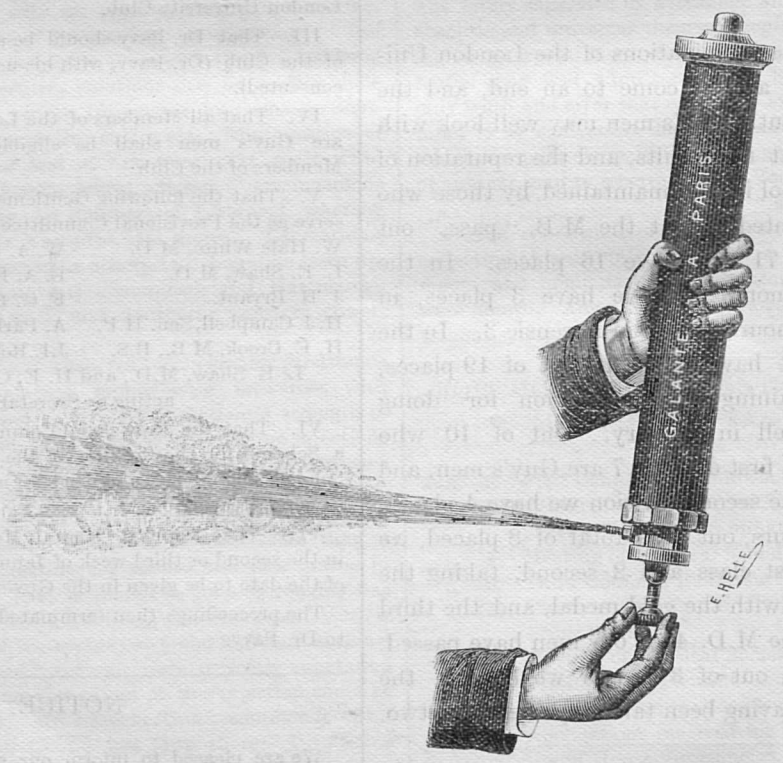
Four patterns of these tubes are made :—

| | | | | | |
|---|---|---|---|---|---|
| Tube A | contains | 130 | cubic | centimetres | of chloride of methyle. |
| ,, B | ,, | 180 | ,, | ,, | ,, |
| ,, C | ,, | 240 | ,, | ,, | ,, |
| ,, D | ,, | 400 | ,, | ,, | ,, |

When these instruments contain chloride of methyle, it is advisable to place the instruments where they will not be subject to a high temperature. Each tube is marked with its tare, therefore, in weighing it, correct account can be kept of the amount of chloride of methyle contained in it, and will serve as a criterion for the amount that has been used.

Messrs. Christy have sent us the above apparatus, which we have used in a few cases, and it undoubtedly possesses many advantages ; but though producing local anæsthesia, yet its application is somewhat painful, and as the part to which it has been applied regains sensibility there is a good deal of smarting.

Fig. 2.



## EXAMINATION FOR THE M. B. CAMBRIDGE.

The following gentlemen have now passed all the necessary examinations for the M. B. Cambridge:—

A. T. MacConkey — A. G. W. Bowen
T. E. Mitchell — E. H. Lipscomb
R. J. Roberts.

## LONDON UNIVERSITY EXAMINATIONS.

DOCTOR OF MEDICINE.

S. R. Alexander. — C. F. Routh.
E. Goodall, B.S. — H. E. Vincent, B.S.

MASTER IN SURGERY.

L. A. Dunn (Gold Medal). — C. Gross, M.D.

BACHELOR OF MEDICINE—HONORS LIST.

MEDICINE.

First Class—A. Parkin.
Second Class—J. L. Roberts, B.A., B.Sc. E. H. Starling.

OBSTETRIC MEDICINE.

Second class—J. L. Roberts, B.A., B.Sc.
Third class—A. Parkin.

FORENSIC MEDICINE.

First class—E. H. Starling (Scholarship and Gold Medal.)
A. Parkin (obtained marks qualifying him for Scholarship.)
Third class—W. C. Swayne.

BACHELOR OF SURGERY.—PASS LIST.

First Division.

A. T. Brown. — H. E. Crook. — H. E. Cuff.
E. W. Goodall, M.D. — E Moss. — A. Parkin.
E. H. Starling.

Second Division.

E. H. Brock. — G. B. Smith.
W. E. Tressider. — J. A. Wheeler.

BACHELOR OF SURGERY.—HONOURS LIST.

First class—A. Parkin (Gold Medal). E. H. Starling.
Second class—H. E. Crook. E. W. Goodall, M.D.

## PATHOLOGICAL NOTES.

1652[38], *Congenital Coccygeal Tumour.*—This is described as an "irregular, multilocular, cystic tumour, situated between the coccyx and rectum. The cysts contained sebaceous material, and were lined with columnar epithelium." It belongs to the class of congenital sacral tumours which are found in the hollow of the sacrum, or on the front of the coccyx, and are separated from the rectum by the levator ani. Two varieties of these are distinguished—one in which the tumour results from a dilatation of the spinal meninges, and is thus practically an anterior spina bifida; the other varies considerably in its structure, and is supposed to be developed from Luschka's gland. Our specimen is evidently an example of the latter variety. Many similar specimens are recorded, and a careful review of their structure, together with the facts which embryology teaches of the development of the intestine, leads to the conclusion that they are formed from the neurenteric canal of the fœtus. This passage, it will be remembered, runs from the central canal of the spinal cord, round the posterior end of the notochord, and ends in the post-anal gut. Its lining of columnar epithelium corresponds with the description of the cysts given above, and increases the probability of this mode of origin. Occasionally, the post-anal gut itself is converted into a cystic tumour, for there are records of specimens possessing a well developed mucous membrane with Lieberkühn's glands and lymph follicles.

2546[55]. *Congenital Sacral Tumour.*—This specimen may well be compared with the preceding, for, though the nomenclature is similar (and accordingly misleading), it really belongs to the group of malformations or teratomata. It should be styled parasitic fœtus, and resembles the remarkable case of Laloo, who was exhibited tn London a few months since. The most commonly received explanation of this curious deformity is that cleavage of the germinal area takes place, and that each portion forms a more or less complete embryo. if they develop equally, the result will be a "Double Monster;" but it generally happens that the growth of the one outstrips that of the other, and the abortive embryo becomes the parasite. One of the strongest proofs of the correctness of this theory is that double monsters are always of the same sex, which could scarcely happen if they were the result of the amalgamation of two separately impregnated ova.

1883[10]. *Congenital Stricture of Rectum.*—This preparation is an illustration of what is usually termed diaphragmatic stricture of the rectum. One of the well known varieties of imperforate rectum is due to want of union between the lower end of the bowel and the invagination from the surface which forms the anus. Now, this specimen may be looked upon as a further stage of the above deformity. Union has taken place to a certain degree, but failing to become complete, the calibre of the bowel is partially occluded by a kind of membranous diaphragm. The similarity of this condition to what normally exists in the virgin vagina renders it probable that the hymen is also a remnant of an incomplete coalescence between the lower end of the genital passage and the involution of epiblast.

## Green Extracts.

FOSTER'S PHYSIOLOGY (5th Edition, 1888).

*(Continued.)*

An interrupted current of moderate strength, passed through one of the vagi, will stop the heart beating; it remains for a time in diastole, motionless and flaccid, all its fibres in a state of relaxation. If the duration of the stimulation be short, and the strength of the current great, the standstill may continue after the current has been shut off; the beats when they reappear are generally at first feeble and infrequent, but now reach or even

go beyond previous vigour and frequency. If the duration of the current be very long, the heart may recommence beating while the stimulation is still going on, but the beats are feeble and infrequent, though gradually increasing in strength and frequency. Mechanical, chemical, or thermal stimulation of the vagus will also produce inhibition; it not unfrequently happens that even strong stimulation of the vagus on one side produces no change of the rhythm, while moderate stimulation of the nerve on the other side of the neck brings the heart to a standstill at once: during the inhibition a needle prick may be followed by a beat. Hence impulses descending the vagus inhibit spontaneous beats, but have not abolished the active irritability of the cardiac tissues. In the frog sometimes, when the mixed trunk of the vagus is stimulated in the neck, the beats are increased in frequency, but may be diminished in force.

When the upper end of the divided sympathetic is stimulated in the frog, impulses pass up to the vagus, and thence down the mixed nerve to the heart, the beats are augmented and increased in frequency and force. When the vagus is stimulated before it is joined by the sympathetic fibres, pure and constant inhibitory results are obtained.

Inhibition is followed by a period of reaction; indeed, the total effect of stimulating the vagus is not to exhaust the heart, but to strengthen it, and a feebly beating heart may be nursed into vigorous activity by repeated inhibitions. Augmentor fibres may be traced from their junction with the vagus, down the short sympathetic of the neck, through the ganglion connected with the first spinal nerve, through one or both the loops of the annulus Vieussens, through the second ganglion to the third ganglion. and thence through the ramus communicans, or visceral branch of that ganglion, to the third spinal nerve, by the anterior root of which they reach the spinal cord.

i. Inhibition results.—When a needle is thrust into the part of the medulla oblongata connected with the vagus.

ii. In a reflex manner.—When the intestine of a frog is struck sharply with the handle of a scalpel, the heart standing still in diastole.

iii. When the nervus mesenterici is stimulated with the interrupted current. But when the vagi are cut, or medulla destroyed, inhibition is not produced.

iv. When the central end of one vagus is stimulated, the other inhibits.

v. When the peritoneal surface of intestine is inflamed, very gentle stimulation will produce marked inhibition.

vi. Crushing a frog's foot stops the heart.

vii. Fainting, which accompanies severe pain, or mental emotion, is an illustration of cardiac inhibition by the vagus.

In the mammal, inhibitory fibres seem not to belong to the vagus proper, but leave the central nervous system by the spinal accessory nerve. Thus, if the roots of the spinal accessory be divided, those of the vagus proper being left intact, the spinal accessory fibres in the vagus degenerate; and when this takes place, stimulation of the vagus trunk fails to produce the ordinary inhibitory effects.

In the dog, the inhibitory fibres run in the upper medullary roots of the spinal accessory by the internal branch of the spinal accessory, past the ganglion trunci vagi, along the trunk of the vagus, and so by branches to the superior vena cava and heart.

In the dog, the augmentor fibres pass from the spinal cord by the anterior roots of the 2nd and 3rd thoracic nerves, pass the 2nd and 3rd (stellate) thoracic ganglia, by the annulus Vieusseus to the lower cervical ganglion, from whence, as also from the annulus itself, they pass along the cardiac nerves to the superior vena cava.

Palpitation of the heart is probably due to the sudden positfve action of the augmentory impulses, though it may be possibly due, in part at least, to sudden withdrawal of normal continuous tonic inhibitory impulses.

The inhibitory fibres of the heart are always medullated right down to the heart, and are of fine calibre. The anterior roots of the 2nd and 3rd dorsal nerves, and their white rami communicantes, are exclusively medullated. But the nerves, which convey the augmenting impulses from the lower cervical ganglion, or annulus, to the heart, consist of non-medullated fibres.

Inhibitory fibres are medullated until they reach the heart, where they lose their medulla, probably in connection with some of the cardiac ganglia. We do not know the physiological effect or purpose of the loss of medulla, coincident with its disappearance, an increase of fibres frequently takes place, more than one non-medullated fibre leaving a nerve cell, into which one medullated fibre enters; and we may suppose that this mode of branching has purposes, not fulfilled by the mere division of a fibre.

We may suppose that the cardiac ganglia are in some way concerned in the nutrition of the cardiac nerve fibres.

It is in the domain of nerve physiology that the chief addition appears, and Chapter III, which changes its title from "The Fundamental Properties of Nervous Tissues" to "The More General Features of Nervous Tissues," has grown from ten to sixteen pages. It opens with a valuable diagram, which we should like to be able to reproduce, the scheme, namely, of a segment of the spinal cord, or *neural metamere*. This summarises very clearly the modern ideas on the relation of the sympathetic and cerebro-spinal systems. The whole of the sympathetic system with its ganglia, plexuses, and nerves, is to be regarded as a development or expansion of the visceral or splanchnic divisions of certain spinal nerves. By means of this sympathetic system, splanchnic fibres from the central nervous system reach the viscera, some of them passing on their way through secondary or tertiary ganglia. The sympathetic system, however, does not comprise all fibres, which are splanchnic; nor, on the other hand, do the splanchnic nerves of the anatomist comprise all fibres which belong to the splanchnic system in the above sense. The spinal nerves proper

become now the *somatic division*. Vaso-constrictor nerves are branches of the splanchnic division of the cerebro-spinal nerves, and such of them as go to parts supplied also by somatic nerves, after running for some distance in the splanchnic division, turn aside and join the somatic division, the fibres of which they accompany on the way to the tissues, whose blood-vessels they supply. Non-medullated fibres which are found in the somatic division, appear to be fibres which have joined it from the splanchnic division.

The structure of spinal ganglia is fully dealt with in this chapter, it being shown that probably every cell in the ganglion is connected, as it were by a ⊢ piece, on the one hand, to a fibre of the posterior root, and in the other to a fibre of the nerve trunk.

There is no satisfactory evidence that the ganglia of the splanchnic system ever act as centres of reflex action, and it is quite possible that their function, like that of the spinal ganglia, is wholly nutritive.

If the sciatic nerve (Chap. IV., Sec. 6) be divided, and some days afterward (by which time the flushing and increased temperature of the foot, following upon the section, has wholly or largely passed away) the peripheral stump be stimulated with an interrupted current, a renewed flushing and rise of temperature is the result. The sciatic nerve contains vaso-constrictor and vaso-dilator fibres; the former seems to predominate, and hence constriction is the more common result of stimulation. The constrictor fibres also appear to be more readily affected by a tetanising current than the dilator fibres. In the cut nerve they lose their irritability earlier than the dilator fibres, which retain it for many days, so that at a certain stage, the interrupted current readily throws the dilator fibres into action.

When the leg is placed in ice-cold water, which depresses the constrictors more than the dilators, stimulation of the recently divided sciatic nerve produces dilation. Rhythmical stimulation of a recently divided nerve also produces dilation.

In motor nerves vaso dilator fibres predominate, and urari, which prevents the contraction of a muscle when its nerve is stimulated, in no way interferes with the vaso-dilator fibres (or the vaso-constrictor), which the motor nerve contains. This may be illustrated by placing the mylo-hyoid of a urarised frog under the microscope, a widening of the vessels is observed when the nerve is stimulated.

When the muscle contracts, the chemical products of the metabolism of the muscle may, by direct action on the minute blood-vessels, apart from any nervous agency, lead to a widening of these blood vessels. This, however, is doubtful.

In the dog, vaso-constrictor fibres leave the spinal cord by the anterior roots of the spinal nerves, reaching from 2nd dorsal to 2nd lumbar, inclusive. Running in the case of each nerve to the mixed nerve trunk, they pass along the visceral branch (white) to the chain of ganglia lying in the thorax and abdomen. Those going to the head and neck, pass upwards through the annulus to the lower cervical ganglion, and thence up the cervical sympathetic. Those for the abdominal viscera pass off in a similar way to the abdominal splanchnic. Those destined for the arm take their way by the recurrent fibres (grey), and so reach the brachial plexus.

All the vaso-constrictor fibres, whatever their destination, leave the spinal cord by the anterior roots of the spinal nerves, and then passing through the appropriate visceral branches, join the chain of ganglia. In these ganglia the fibres undergo a remarkable change. Along the anterior root and the visceral branch, they are medullated fibres (1·8 to 3·6 m in diameter); but long before they reach the blood vessels they become non-medullated fibres; they appear to lose their medulla in the splanchnic ganglia. The vaso dilator fibres for the submaxillary gland run in the chorda tympani which runs along the lingual nerve to the tongue.

The ramus tympanicus of the glossopharyngeal nerve contains vaso-dilator fibres for the parotid, and it is probable that the fifth contains vaso-dilator fibres for the eye and nose.

In the anterior roots of the 2nd and 3rd sacral nerve run vaso-dilator fibres, which pass into the so-called nervi erigentes, stimulation of which causes dilation of the arteries of the penis.

Vaso-dilator nerves pursue a direct course from the spinal cord through the anterior spinal roots. The constrictor fibres pass into the splanchnic system before they join the nerve trunk.

Vaso-constrictor fibres are always in a state of moderate activity, and when cut, dilation results. Vaso-dilator fibres appear to possess no such continual activity, their section causes no constriction.

In the rabbit, the depressor nerve, running with the cervical sympathetic, and extending to the heart, leaves the vagus high up by two roots, one of which is generally a branch of the superior laryngeal nerve. In the dog it is united with the vagus. After division, stimulation of the peripheral part gives no marked result. But if, while the pressure in the carotid is being registered, the central end be stimulated, a gradual but marked fall of pressure is observed, lasting sometimes after the removal of the stimulus.

Since the beat of the heart is not changed, the fall of pressure must be due to the diminution of peripheral resistance occasioned by the dilation of some arteries, chiefly those governed by the abdominal splanchnics, for if these nerves be divided on both sides, previous to the experiment, the fall of pressure, when the nerve is stimulated, is almost insignificant. It is inferred that the impulses, ascending the depressor, interfere with the discharge from the "centre" by the splanchnics of the normal efferent impulses, maintaining the tone of the abdominal arteries, and dilation and fall of pressure results. If the central end of the divided sciatic nerve in a urarised animal be stimulated, an increase of blood-pressure is observed, steadily reaching a maximum, and then slowly falling again. The rise is due to the constriction of the arteries of the abdominal splanchnic area. Stimulation of any nerve containing afferent impulses causes a rise of pressure; but in an animal under influence of a large dose of chloral, a fall is observed.

C. F. WAKEFIELD.

# Sport.

## FOOTBALL.

### QUEEN'S v. GUY'S.

Played at Eltham on Saturday, December 8th, 1888, in most miserable and gloomy weather, rain, fog, and mud, forming a very uncomfortable trio te contend with.

It was three-thirty before Corner started the game for Queen's, Biggs returned well, but our forwards were slow in getting up to the ball, a combined rush by our opponents carrying it dangerously near our line, Edwards only just saving in time by kicking into touch. Several good scrimmages in our twenty-five now occurred, Queen's having the better of them, Corner and Brenchley being very conspicuous in more than one good dribble. Biggs responding with a similar feat for Guy's relieved the pressure, but Queen's played up with zeal, again attacked, the result being that young Gilpin managed to secure a try which was not improved upon. This seemed to remind our forwards that they were really playing a match, and well following up the kick out managed to prevent Brooks from returning the ball, from the ensueing scrum Bryant secured and beautifully passed to White, who made a lot of ground before being collared. Queen's now made a rush and looked like scoring; from the line out Allport caught the ball and further relieved his side before he was stopped by Corner.

Nothing of importance occurred for some time excepting a good dribble by Biggs right down the ground, and some short and useful runs by Tuck and White.

From a line out Biggs broke away with a splendid fast dribble down the touch line, ending up by securing a try in the extreme corner; White took the place kick and made a splendid attempt, the ball just going under the bar.

Some even play followed the kick out which was chiefly confined to the forwards both sides attacking in turn, but half time soon arrived with score standing one try each.

On resuming the play became faster, Guy's making streuuous efforts to augment their score. Allport, Biggs, Rogers, and Rygate, playing up in their usual determined style gave their opponents a lot of trouble, and for some time Queen's had all their work cut out to keep their lines intact; Tuck and Bettington making several dangerous excursions into their territory, but Brooks who was playing very well managed to prevent a too near approach.

A free kick enabled Queen's to relieve the pressure, Brooks making a good drop into touch near the half-way flag. From the throw in Bryant secured and made a splendid run thro' the opposing forwards, dodging one after another in first-rate style, finishing a brilliant run by a fine sharp pass which Bettington, who was backing up, took in splendid fashion without slacking his pace, went on and secured a well earned try between the posts. White easily converting it into a goal.

For a short time Queen's more than held their own and looked like scoring, but Steele getting the ball made a short run when it was greatly needed, and thus prevented disaster. Gradually our forwards carried the game to the other end, but the wet and slipping ground prevented our back division from scoring. It was now getting so foggy that little could be seen of the game. From a scrimmage on our goal line, Queen's managed to run in near the touch line but the kick at goal was a failure.

From now to the end Guy's had somewhat the best of the play, the match resulting in a victory for them by four points to two.

When the state of the ground is remembered, too severe criticism would hardly be just; on the whole the form shown was rather disappointing, the forwards lacking the dash and combination which had characterised some of their recent matches, and we would ask them to remember that golden rule "never to pass in their own twenty-five," which has been done too often of late with disastrous results on more than one occasion.

Bryant played a splendid game, his run which enabled Bettington to score being by far the finest piece of play in the match. Steele who was playing without bars to his boots was hardly up to his usual form. White and Tuck both played fairly well, but must pass more; Bettington is to be congratulated on the first-rate style in which he took the pass above alluded to, we hope to see him repeat the performance before the season is much older. Edwards at back was good, but trusts too much to his feet in stopping a rush, a fault easily remedied but too dangerous to be encouraged. Biggs worked hard and brought off several fine dribbles. Allport, Rygate, Fawcett and Rogers were the pick of the others, Pantin showing improved form, being very good out of touch.

Before concluding these remarks we should like to call attention to the following decisions of the Rugby Union, as a lot of unnecessary discussion would have been saved if they had been more generally remembered by the players participating in this match, viz.:—

1st. "In future the Referee will grant fair catches by blowing his whistle without reference to his umpire, and without any further claim being necessary save the heel mark. If, therefore, the whistle is not blown forthwith it must be taken that the claim is not granted."

2nd. A player providing he is not carrying the ball—*a*. May be in touch and yet play the ball so long as the ball itself is not in touch. *b*. May be in touch-in-goal and yet score a try by touching the ball down, so long as the ball is not touch-in-goal.

Teams:—Queen's—A. Brooks (back); A. R. Sargant, A. H. Dunn. P. T. Lunn (three-quarter backs); A. Thomas and F. Gilpin (half-backs); H. Bowley, H. Corner, C. A. Brenchley, A. Beveridge, W. Stirling, T. Stirling, R. Bennet, F. Cooke and L. Gibson (forwards).

Guy's.—T. D. Edwards (back); H. B. White, J. Bellington and Tuck (three-quarter backs); J. H. Bryant and H. G. Steele (half-backs); A. Allport, J. Fawcett, H. B. Rygate, W. Rogers, H. B. Marriott, J. H. Muncaster, S, Layman, J. Biggs and Pantin (forwards).

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